

# **PROOFS**

**{ Criterion – 3.3.2 }**

**2014-2015**

### **REGISTRATION FEES**

There is no registration fee for the participants from AICTE recognized institutes. However, at par cheque of Rs. 1000/- (drawn in favour of “Director, Guru Nanak Dev Engineering College, Ludhiana”, payable at Ludhiana) should be enclosed with the application form which will be refunded to the participants after completion of the course. The other participants will have to pay non-refundable registration fee of Rs. 5000/- by a demand draft.

### **HOW TO APPLY**

Interested persons should register at [http://gndec.ac.in/stc\\_ltict](http://gndec.ac.in/stc_ltict) and the printout of the registration form duly recommended/ sponsored by the competent authority should reach to the coordinators on or before September 26<sup>th</sup>, 2014.

### **ADDRESS FOR CORRESPONDENCE**

**Dr. Kulvinder Singh Mann**

Associate Professor and Head,  
Dept. of Information Technology,  
Guru Nanak Dev Engineering College,  
Gill Road, Ludhiana – 141006 (PUNJAB)  
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E-mail: [stc\\_ltict@gndec.ac.in](mailto:stc_ltict@gndec.ac.in)

### **ABOUT LUDHIANA**

Ludhiana city is a well known Industrial hub in Northern India, especially for manufacturing bicycles, cycle parts, sewing machines, hosiery etc. The city is well-connected by direct rail-service with all parts of India. The weather in Ludhiana in the month of August is hot & humid with temperature around 35°-40°C.

### **ABOUT INSTITUTE**

Guru Nanak Dev Engineering College, Ludhiana (established in 1956), is one of the oldest and a premier Engineering Institute of India. The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla Highway. The foundation stone of the college was laid by Honorable Dr. Rajendra Prasad Ji, President of India on 8<sup>th</sup> April, 1956. GNDEC is now an autonomous college under UGC Act 1956 [2(f) and 12(B)]. The institution has seven B.Tech., thirteen M.Tech., MBA and MCA courses, besides being a QIP centre for Ph.D. All the undergraduate courses of the institute are accredited by National Board of Accreditation (NBA), AICTE, New Delhi.

### **ABOUT DEPARTMENT**

Department of Information Technology was established in 2001 and currently offering under-graduate course with intake of 90 students. The vision of the department is to create groomed, technically competent and skilled intellectual IT professionals specifically from the rural area of Punjab to meet the current challenges of the modern computing industry. The Department has various laboratories equipped with state-of-the-art computing facilities to support the research and teaching activities. A library with a lot of books on Information Technology for the exclusive use of the faculty and students are located in the premises of the Department.

### **TEQIP-II Sponsored**

#### **Short Term Course**

on

### **LATEST TRENDS IN INFORMATION AND COMMUNICATION TECHNOLOGIES**

(October 4<sup>th</sup>, 2014 to October 8<sup>th</sup>, 2014)



**Chief-Coordinator: Dr. K.S. Mann**

**Coordinators: Ms. Raninder Kaur Dhillon**

**Mr. Pankaj Bhambri**

#### **Organized By:**

Department of Information Technology,  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab-141006

[An Autonomous College under 2(f) and 12(B) of UGC Act 1956]

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Web-link: [www.gndec.ac.in](http://www.gndec.ac.in)

## **OBJECTIVE**

The objective of this short term course is to provide insights into the field of Information and Communication Technologies (ICTs). Information and Communication Technology (ICT) refers to all the technologies used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. ICT has more recently used to describe the convergence of several technologies. Converging Technologies that exemplify ICT include the merging of audiovisual, telephone and computer networks through a common cabling system.

This program will be beneficial to academicians and researchers and course contents will be focused on:

- Mobile, Network and Cloud Computing
- Network, Information and Cyber Security
- Image and Natural Language Processing
- Data Mining and Bioinformatics
- Research issues related to IT

## **WHO CAN APPLY?**

The program is designed for the academicians, research scholars, faculty members, and professionals; who are keen to explore the field of ICT for different research opportunities and discuss the challenges for the development of different applications in this field.

## **BOARDING AND LODGING**

Accommodation is available in the College Guest House and Hostels on reasonable charges. Boarding and Lodging of selected participants will be provided only on prior request.

## **PATRON**

**Dr. M.S. Saini**

## **CHIEF COORDINATOR**

**Dr. Kulvinder Singh Mann**

## **COORDINATORS**

**Ms. Raninder Kaur Dhillon**

**Mr. Pankaj Bhambri**

## **ORGANIZING COMMITTEE**

Mr. Akshay Girdhar (Assoc. Prof.)

Dr. Manpreet Singh (Asstt. Prof.)

Dr. Kiran Jyoti (Asstt. Prof.)

Mr. Ajay Shiv Sharma (Asstt. Prof. cum CP)

Mr. Amit Kamra (Asstt. Prof.)

Ms. Kamljit Kaur (Asstt. Prof.)

Ms. Parminder Kaur Wadhwa (Asstt. Prof.)

Ms. Manjot Kaur (Asstt. Prof.)

Ms. Manpreet Kaur Grewal (Asstt. Prof.)

Ms. Ranjodh Kaur (Asstt. Prof.)

Ms. Priyanka Arora (Asstt. Prof.)

Mr. Harbhag Singh (Asstt. Prof. cum CP)

Mr. Anshu Aneja (Asstt. Prof.)

Ms. Arunjot Kaur (Asstt. Prof.)

Mr. Amandeep S. Bhathal (Lab Supdt.)

## **RESOURCE PERSONS**

The course will be conducted by highly qualified and experienced experts from academia like IIT Ropar, TU Patiala, PAU Ludhiana, DAVU Jalandhar, and industry like Infosys, HCL, Secugenius and U-NET Solutions etc. Hands on Practice sessions will be conducted in the areas of N/W Sec., Firewall Implementation, SSH, SFTP etc.

## **HOW TO REACH**

The beautiful campus is about 15 kms. away from local airport, 7 kms. from railway station and about 5 kms. from bus stand.

## **TEQIP-II Sponsored STC**

**on**

## **LATEST TRENDS IN INFORMATION AND COMMUNICATION TECHNOLOGIES**

(October 4<sup>th</sup>, 2014 to October 8<sup>th</sup>, 2014)

## **Application Form**

Name: .....

Father's Name: .....

Academic Qualification: .....

Designation: .....

Department: .....

Address of Sponsoring Authority: .....

.....

Tel.: ..... Mobile: .....

E-mail: .....

Bank Draft/ Cheque No.: .....

Date: ..... Signature of the Applicant

## **Sponsorship Certificate**

The applicant will be permitted to participate in the above programme, if selected. This is also certified that this institute is recognized by AICTE.

Signature and Seal of Sponsoring Authority



**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

**Department Of Information Technology**

Ref. No. IT/9991

Dated: 6/6/14

Director

(Through: Coordinator TEQIP-II)

Department of Information Technology is planning to conduct a Short Term Course (STC) from 04<sup>th</sup> to 08<sup>th</sup> August, 2014 on the topic "Latest Trends in Information and Communication Technologies" under the TEQIP-II Project.

You are requested to allow for the same and provide financial support as per rules of the TEQIP-II scheme.

  
a.m. 6.6.14  
Head of Department

Department of Information Technology

CC: Office Copy



GURU NANAK DEV ENGINEERING COLLEGE LUDHIANA

No. TEQIP-II/1305

Dated 10.6.14

HOD - IT

Refer to your letter no. IT/9991 dated 06.06.2014, you are allowed to conduct short term course (STC) w.e.f. 04 - 08 August, 2014 on the topic "Latest Trends in Information and Communication Technologies" under TEQIP- II.

Financial support will be given as per TEQIP-II rules.

  
Co-ordinator TEQIP-II

TEQIP-II SPONSORED  
SHORT TERM COURSE  
ON  
LATEST TRENDS IN INFORMATION AND COMMUNICATION TECHNOLOGIES  
(04TH-08TH OCTOBER, 2014)



**TEQIP-II SPONSORED  
SHORT TERM COURSE  
ON  
LATEST TRENDS IN INFORMATION AND COMMUNICATION TECHNOLOGIES  
(04TH-08TH OCTOBER, 2014)**





**Event Report of Short Term Course "Latest Trends in Information and Communication Technologies" Conducted by the IT Dept. during 04<sup>th</sup>-08<sup>th</sup> August 2014**

Information Technology Department of Guru Nanak Dev Engineering College, Ludhiana conducted the weeklong series of lectures and hands-on practice sessions of Short Term Course (STC) on title "Latest Trends in Information and Communication Technologies". This STC was sponsored by Technical Education Quality Improvement Programme (TEQIP-II) cell of the Institute. The valediction programme of this course was organized in the seminar hall of the campus on 08<sup>th</sup> Aug. 2014 (Wed.). This programme was organized with the objective of sharing recent developments in the areas network security, bioinformatics, image processing, natural language processing, firewall implementation and configuration with practical demonstration. As many as 17 resource persons in this programme shared their views and further research areas among the participants.

Dr. O.P. Gupta, Dy. Director, School of Electrical Engineering at Punjab Agriculture University Ludhiana was invited as chief guest of the valediction programme. In his speech, chief guest emphasised that awareness of technology trends in IT and ICT is the need of the hour, but at same time security of information transferred is important area of concern. He further elaborated that security measures can be implemented at the personal level by doing simple encryption of personal data by oneself. TEQIP-II coordinator, Dr. J.N.Jha mentioned the benefits as well as wastage of resources due to updation in technology every day.

Sh. Amolak Singh Kalsi, Technical Director & District Informatics Officer at National Informatics Centre, Jalandhar was invited as Chief Guest in the inauguration of the programme. Mr. Kalsi pointed out various innovative ideas implemented at the industry and government level for the concern of ICT. In the whole five day programme the academicians, software professional and researchers were invited to deliver the expert talk during the course. During this programme, Dr. Sarbjit Singh, Associate Prof. from Panjab University Chandigarh elaborated the **role of social media, mobility, analytics and cloud computing** in the programme. Dr. Maninder Singh, Associate Prof. from Thapar University Patiala shared his views on **social network analysis and big data deluge**. Dr. Manpreet Singh from GNDEC Ludhiana explained the topic titled "Bioinformatics: From Evolution to Computation". Dr. Anjali Garg from GNIMT Ludhiana elaborated the **Local and Global Feature based Descriptors for Shape based Image Retrieval**. Mr. Amit Kamra from GNDEC Ludhiana presented new research ideas in the filed of biomedical imaging. Mr. Vipin Gupta from U-Net solution organized the **hands on session on Firewall Implementation and Configuration and Public/ Private Key based Authentication using Secure Protocols like SSH, SFTP and HTTPS**. Mr. Sanjeev Kumar from DAV University Jalandhar and Dr. Parminder Singh from GNDEC Ludhiana delivered expert talk on Natural Language Processing with its Various Research Areas and Text to Speech Synthesis System respectively. Dr. Harish Kumar in his speech specified the role of Cyber Security and Information Retrieval.

Dr. K.S. Mann, HOD of IT Dept. and chief coordinator of this course presented the summary & feedback report of this short term course at valediction programme. He discussed the significance of these types of courses for faculties as well as researchers and congratulated the coordinators for organizing this STC. Participation Certificates were issued to 63 participants, which came from different regions of the country to attend this STC.

  
(Pardeep Kumar)  
(course coordinator)

**2015-2016**



# **TEQIP-II Sponsored Two Day Workshop on**



## **Producing Elegant Technical Research Reports Efficiently**

**(January 19 - 20, 2016)**

**Patron**

Dr. M.S. Saini, Director

**Chairman**

Dr. J.N. Jha

HoD Civil Engg.

**Chief Coordinator**

Dr. Hardeep Singh Rai

**Co- Chairman**

Dr. Parminder Singh

HoD Computer Sci. & Engg.

**Coordinator**

Er. Sukhjit Singh Sehra

### **Organised jointly by**

Department of Civil Engineering

&

Department of Computer Science & Engineering

Guru Nanak Dev Engineering College, Ludhiana, Punjab-141006

# Objective

The objective of this two day workshop is to provide insight into structured technical reports writing, which is of utmost importance for any research project including M.Tech and Ph.D degree programmes.

The participants would be guided on the selection of tools based on the philosophy that authors should be able to focus on the content of what they are writing without going through the pain of achieving required format. The tools to be discussed are possessing superior support for automatic formatting, mathematical equations, graphics, bibliography and handling of references over the traditional tools. This workshop will enable the academicians to productively utilise their valuable time in conducting research rather than spending time in formatting their reports/thesis. The workshop will focus on:

1. Introduction about tools
2. Basic Document Creation and Formatting the Document
3. Handling Graphics.
4. Handling References



## Who can apply?

The workshop is designed for the M.Tech students, academicians, research scholars, faculty members, and professionals, who are keen to learn innovative and time saving tools suitable for producing research reports.

## Workshop Venue, Dates and Timings

Venue: Seminar Hall, Consultancy Cell (<http://bit.do/tccSeminarHall>)

Dates: January 19 – 20, 2016

Timings: 09:00 a.m. to 05:00 p.m.

## Resource Persons

Resource persons to conduct the workshop are in-house expert faculty members with excellent track record of accomplishment in technical education, research and out-reach.

## Boarding and Lodging

Accommodation is available in the College Hostels and Guest House on reasonable charges on prior request.

## Registration Fee

The registration fee is Rs. 1,000/- for teachers, PG students and Ph.D. scholars from Academic Institutes and Rs. 1,500/- for participants from Industry and other organisations. The applicants are required to submit their application along with the registration fee in the form of a DD, drawn in favour of “Director, Guru Nanak Dev Engineering College”, payable at Ludhiana.

## How to register for the workshop?

Please visit <http://bit.do/qigne> for electronically fillable registration form and email the filled form to [qi@gndec.ac.in](mailto:qi@gndec.ac.in) along with scanned copy of demand draft before last date of registration. The registration for limited seats will be done on first-come-first basis up-to 15<sup>th</sup> January, 2016.

## How to reach?

The college is located at a distance of 5 km from Bus Stand, 6 km from Railway Station, and 115 km from Chandigarh Airport. There is availability of all sorts of public and private transports from stated places. The nearest landmark to the college is fly-over on Gill Road along Sidhwan Canal.

# About Institute

Guru Nanak Dev Engineering College (GNDEC), Ludhiana (established in 1956), is one of the oldest and a premier Engineering Institute of India. The Institute is set up on 88 acres of sprawling pristine land along SH 11, i.e. Gill Road (Ludhiana-Malerkotla Highway). The foundation stone of the college was laid by Honourable Dr. Rajendra Prasad Ji, President of India on April 8, 1956. GNDEC is now an autonomous college under UGC Act 1956 [2(f) and 12(B)]. The Institution has seven Under-Graduate (UG) programmes, thirteen Post-Graduate (PG) programmes, besides being a QIP centre for Ph.D. All the undergraduate courses of the Institute are accredited by National Board of Accreditation (NBA), AICTE, New Delhi.

# About Department

## **Civil Engineering:**

Civil Engineering Department has been accredited by National Board of Accreditation (NBA) since 2004 and is running three full time PG programmes (Structural Engineering; Geo-technical Engineering; Environmental Science and Engineering) and one part-time PG programme (Soil Mechanics and Foundation Engineering) along with UG programme in Civil Engineering in two shifts. The department has the state of art facilities for R&D activities.

## **Computer Science & Engineering:**

Computer Science & Engineering Department was established in 1997 and has been accredited by National Board of Accreditation (NBA). Department is currently offering UG and PG programmes with an intake of 180 and 18 respectively. The department has various laboratories equipped with state-of-the-art computing facilities to support the research and teaching activities.



# Address for Correspondence

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Department of Computer Science & Engineering

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**Workshop on Producing Elegant Technical Research Reports Efficiently  
(January 19 – 20, 2016)**



*Illustration 1: Workshop on Producing Elegant Technical Research Reports Efficiently (January 19 – 20, 2016)*



*Illustration 2: Felicitations in Workshop on Producing Elegant Technical Research Reports Efficiently (January 19 – 20, 2016)*



*Illustration 3: Certificate distribution to Participant in Workshop on Producing Elegant Technical Research Reports Efficiently (January 19 – 20, 2016)*



*Illustration 4: Group Photograph for Workshop on Producing Elegant Technical Research Reports Efficiently (January 19 – 20, 2016)*



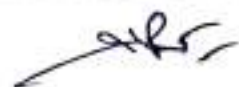
**Workshop on Producing Elegant Technical Research Reports Efficiently  
(January 19 – 20, 2016)**

**List of Participants**

S No	Name	Designation	Affiliation
1	Aman Kumar	Faculty	SLIET
2	Amandeep Verma	PG Student	GNDEC
3	Ameeta Seehra	Faculty	GNDEC
4	Amit Sagar	PG Student	GNDEC
5	Amritpal Kaur	PG Student	GNDEC
6	Anjali	PG Student	CU, Mohali
7	Anterpreet Kaur	PG Student	GNDEC
8	Antterpreet Kaur	PG Student	GNDEC
9	Anuradha	PG Student	CU, Mohali
10	Ardamanbir Singh	Faculty	GNDEC
11	Arvinder Singh	PG Student	GNDEC
12	Avtarpreet Singh	PG Student	GNDEC
13	Bhupinder Kaur Srao	Faculty	CU, Mohali
14	Bindia Tarika	Faculty	GNDEC
15	Charanjit Singh	PG Student	GNDEC
16	Dhruv Chander Pant	PhD Scholar	GNDEC
17	Ekta Gupta	Others	
18	Gaurav Gupta	PhD Scholar	NITTTR
19	Hanisha	PG Student	GNDEC
20	Hardev Singh	PG Student	GNDEC
21	Harjinder Kaur	PG Student	GNDEC
22	Harmandeep Singh	Faculty	SLIET
23	Harmandeep Singh Gill	PG Student	GNDEC
24	Harpreet Kaur Grewal	Faculty	GNDEC
25	Harsimranjit Singh	PG Student	GNDEC
26	Harsimranpal Kaur	PG Student	GNDEC
27	Harwinder Singh	PhD Scholar	LLPR Moga
28	Inderjit Singh Dhanoa	Faculty	GNDEC
29	Inderpreet Kaur Dhindsa	Faculty	GNDEC
30	Jagbir Singh	Faculty	GNDEC
31	Jagdeep Singh	Faculty	GNDEC
32	Jagdish Kamboj	Faculty	CU, Mohali
33	Jasleen Kaur	PG Student	GNDEC
34	Jeevan Bhatia	PG Student	GNDEC
35	Jeevesh Kumar	PG Student	NITTTR
36	Kamal Kishor	PG Student	NITTTR
37	Kanwalpreet Sahni	Faculty	GNDEC
38	Kanwardeep Singh	PG Student	GNDEC
39	Lovedeep Singh	PG Student	GNDEC
40	Lovepreet Singh	PG Student	GNDEC
41	Maninder Savra	PG Student	GNDEC



S No	Name	Designation	Affiliation
42	Manjot Singh	PG Student	GNDEC
43	Manvir Singh	PG Student	GNDEC
44	Mehak Sood	PG Student	GNDEC
45	Milanpreet Kaur	PG Student	GNDEC
46	Mukesh Kumar	PG Student	GNDEC
47	Navneet Kaur	Faculty	BBSBEC
48	Navneet Kaur	Faculty	GNDEC
49	Navneet Kaur	PG Student	GNDEC
50	Neeraj Bhanot	PhD Scholar	IITD
51	Pankaj Bhambri	Faculty	GNDEC
52	Pardeep Singh	Faculty	GNDEC
53	Parminder Kaur Wadhwa	Faculty	GNDEC
54	Parminderjeet Singh	Faculty	GNDEC
55	Pawan Verma	PG Student	GNDEC
56	Prateek Malhotra	PG Student	NITTTR
57	Preetinder Singh Brar	Faculty	Chitkara
58	Rajinder Ghai	PhD Scholar	TU
59	Raman Preet	Faculty	LPKC
60	Ramandeep Sharma	PG Student	GNDEC
61	Randhir Singh	Faculty	GNDEC
62	Sakshi Dua	Faculty	LPKC
63	Satwinderjit Kaur	Faculty	GNDEC
64	Sayantan Ghosh	PG Student	NITTTR
65	Shahbaz Singh	PG Student	GNDEC
66	Simrat Kaur	Faculty	BBSBEC
67	Sukhpreet Kaur Gill	PG Student	GNDEC
68	Sumeet Kaur Sehra	Faculty	GNDEC
69	Sumeet Rehal	PG Student	GNDEC
70	Upasna Sharma	PG Student	GNDEC
71	Vijay Kumar	PG Student	GNDEC
72	Vikas Rattan	Faculty	Chitkara
73	Vivek Thapar	Faculty	GNDEC



Dr. H S Rai  
Coordinator, Workshop  
Producing Elegant Technical Research Reports Efficiently

Prof. & Head of Civil Engg. Depu.  
G. N. D. E. College,  
JUDHIANA

## Activity Report

### Two Day Workshop on Producing Elegant Technical Research Reports Efficiently

The Department of Civil Engineering and Computer Science & Engineering organised jointly TEQIP-II sponsored two day work on "Producing Elegant Technical Research Reports Efficiently" held from 19<sup>th</sup> and 20<sup>th</sup> January, 2016. The workshop started with inaugural sessions on 19<sup>th</sup> January, 2016, Mrs. V. Puri was the chief guest of the day and Director GNDEC, Ludhiana presided over the function. Dr. J.N Jha and Dr Parminder singh, chairman and co-chairman of the workshop emphasised on the need of efficient tools for report writing. Seventy Three research scholars (Ph.D. and M.Tech) from various institutes registered for the workshop.

The workshop sessions for both days were hands on lab sessions, where participants learnt and experimented with LaTeX software and Reference Manager software for writing research reports efficiently. The participants were be guided on the selection of tools based on the philosophy that authors should be able to focus on the content rather than achieving the required format. The tools used for conducting workshop were having superior support for automatic formatting, mathematical equations, graphics, bibliography and handling of references over the traditional tools. This workshop enabled the academicians to productively utilise their valuable time in conducting research rather than spending time in formatting their reports and thesis. The workshop ended with a quiz and feedback session. Dr. Hardeep Singh Rai (coordinator) and Mr. Sukhjit Singh Sehra (Co-coordinator) thanked the participants.



# **GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956

## **INDUSTRY INSTITUTE INTERACTION PROGRAM**

**3<sup>RD</sup> FEBRUARY, 2016**

**(UNDER TEQIP-II)**

Organized by

**DEPARTMENT OF MECHANICAL ENGINEERING**

**AND**

**DEPARTMENT OF PRODUCTION ENGINEERING**

### **LIST OF INDUSTRIAL PARTICIPANTS**

<b>S. NO.</b>	<b>NAME</b>	<b>CONTACT NO.</b>	<b>EMAIL ADDRESS</b>
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25.	RAGHBIR SINGH	9417000819	pumco.india@gmail.com
26.	RRCHBIR SINGH	9814917955	harisan.plywood@yahoo.com
27.	SUBHSH CHANDER	9914662233	--
28.	GAGAN BAMRAH	987221924	<a href="mailto:info@vigacompany.com">info@vigacompany.com</a>
29.	JAGDISH KAUSHAL	9855623370	jagdish@philips.com



## PHOTOGRAPHS

✚ *Signing MoU with FICO (Federation of Industrial and Commercial Undertaking)*  
*On Dais : L to R : Mr. M.S Sachdeva, MD Citizen Industries Ltd, Ludhiana, Gen Secretary FICO, Mr. G.S Kular, MD Kular Cycles Ludhiana), K.K Seth, Vice President, FICO, President FICO, Dr. M.S Saini, Director GNDEC, Dr. Sehijpal Singh, HOD (Mechanical Engineering Department)*





✚ *FICO-GNDEC Interaction* : Industrial Representatives as Audience



# **Guru Nanak Dev Engineering College, Ludhiana**

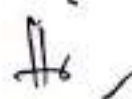
An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956)

## **Department of Mechanical Engineering**

### **Activity report on Improved Industry institute interaction**

**(3rd Feb 2016)**

A program on industry institute interaction was organised in Mechanical and Production Engg Department of GNDEC in collaboration with QCFI Hyderabad. Dr. R.K Garg Director (Northern region, QCFI) and two experts elaborated how academia can help industries for improving productivity with small investments and data collection/handling. It was agreed upon unanimously that research initiatives need to be taken in collaboration with institutions for the overall development and growth of industries. Around 30 MDs and CEOs and officials of top industries of Ludhiana (mostly linked to FICO) and government officials attended this program. Detailed deliberations were made by Mr K.K Seth (Seth Industrial corp.), Mr Ranjodh Singh (GST group of industries), Mr G.S Kular (Kular International), Dr. M.S Saini (Director GNDEC), Dr. R.S Seehra and Dr. S.B Singh (Ex- Principals GNDEC), Dr. Sehijpal Singh -HOD -Mechanical Engg Deptt) and other faculty members of GNDEC. A MoU between Federation of Industrial and Commercial Organisation (FICO) and GNDEC was signed. The primary purpose of this MoU is to increase the mutual participation of industry and institution in technological developments. A model is envisaged in which groups of second year students will be adopted by the industries for enhancing their engineering skills. Mr G.S Kular President of FICO made a commitment that the industries shall create a healthy and sustainable link with GNDEC to consistently mentor the students from their second year. FICO and QCFI had agreed to open a chapter of QCFI in Ludhiana for providing training to the industries on quality issues and creating effective interaction between industries and GNDEC. Around 55 participants took advantage of this interactive session.





## REGISTRATION FORM

**Research Methods for Engineers**  
(31<sup>st</sup> May 2016 to 4<sup>th</sup> June 2016)

Name \_\_\_\_\_

(in Block Letters)

Qualification \_\_\_\_\_

Male / Female \_\_\_\_\_ Age \_\_\_\_\_ (in yrs.)

Designation \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Mobile \_\_\_\_\_

Email ID \_\_\_\_\_

Accommodation required:

Yes / No \_\_\_\_\_

Date \_\_\_\_\_

Signature of the Applicant

Signature & Stamp of Sponsoring Authority

## ORGANIZING COMMITTEE

**Patron**

Prof. (Dr.) M.S. Saini  
Director

**Chief Co-ordinator**

Prof. (Dr.) Sehijpal Singh  
Head of the Department

**Coordinators**

Prof. (Dr.) Harwinder Singh  
Prof. (Dr.) Paramjit Singh

**Co-ordinators**

Prof. Ardamanbir Singh  
Prof. Apinder Singh

**Organizing Committee**

Faculty,  
Deptt. of Mech. Engg.

## CONTACT PERSONS

Prof. (Dr.) Harwinder Singh

Mob.: +91-98151-88044

Prof. (Dr.) Paramjit Singh

Mob.: +91-98159-06659

**Email :**

harwin75@gndec.ac.in

psblliga@gndec.ac.in

## ONE WEEK FACULTY DEVELOPMENT PROGRAMME

(Under TEQIP - II)

on

## RESEARCH METHODS FOR ENGINEERS

(31<sup>st</sup> May 2016 to 4<sup>th</sup> June 2016)



Organized by

Deptt. of Mechanical Engineering

GURU NANAK DEV ENGINEERING COLLEGE

Ludhiana - 141 006, Punjab









TEQIP II

# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(f) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

This certificate is awarded to Dr./ Mr./ Ms. Amsinder Singh Panwar  
of G.NDEC, Ludhiana for participation in workshop / Seminar /  
✓ FDP / SDP / Training on the subject Research Methods for Engineers Organized  
by Mechanical Engineering Department / Branch / Section  
from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP- II,  
Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Sell  
Activity Co-ordinator

gryha  
Co-ordinator TEQIP-II

NSP  
Director





# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(f) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

TEQIP  
II

This certificate is awarded to Dr./ Mr./ Ms. Chetwani Singh Pandher  
of GNDEC, Ludhiana for participation in workshop / Seminar /  
✓ FDP / SDP / Training on the subject Research Methods for Engineers Organized  
by Mechanical Engineering Department / Branch / Section  
from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP- II,  
Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Soh  
Activity Co-ordinator

prjha  
Co-ordinator TEQIP-II

ABH  
Director





# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(F) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

This certificate is awarded to Dr./ Mr./ Ms. Gurwant Singh

of GNDEC, Ludhiana for participation in workshop / Seminar /

✓ FDP / SDP / Training on the subject Research Methods for Engineers Organized

by Mechanical Engineering Department / Branch / Section

from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP- II,

Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Activity Co-ordinator

Sell

Co-ordinator TEQIP-II

Arjha

Director

ASR

TEQIP II



# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(f) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

TEQIP II

This certificate is awarded to Dr./ Mr./ Ms. Gulvin Singh

of GNDEC, Ludhiana for participation in workshop / Seminar /

✓ FDP / SDP / Training on the subject Research Methods for Engineers organized

by Mechanical Engineering Department / Branch / Section

from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP- II,

Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Soh  
Activity Co-ordinator

[Signature]  
Co-ordinator TEQIP-II

[Signature]  
Director





# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(f) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

This certificate is awarded to Dr./ Mr./ Ms. Harnam Singh Sawcha

of GNDEC, Ludhiana for participation in workshop / Seminar /

✓ FDP / SDP / Training on the subject Research Methods for Engineers Organized

by Mechanical Engineering Department / Branch / Section

from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP- II,

Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Activity Co-ordinator

[Signature]  
Co-ordinator TEQIP-II

[Signature]  
Director

T E Q I P II





# Guru Nanak Dev Engineering College

An Autonomous College u/s [2(f) & 12(B)] of UGC Act -1956

Gill Park, Gill Road, Ludhiana-141006, Punjab (India)

## Certificate of Participation

This certificate is awarded to Dr. / Mr. / Ms. Jagjit Kaur

of GNDEC, Ludhiana for participation in workshop / Seminar /

FDP / SDP / Training on the subject Research Methods for Engineers Organized

by Mechanical Engineering Department / Branch / Section

from 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under TEQIP-II,

Sub Component 1.1, a World Bank Aided Project through MHRD, Govt. of India.

Activity Co-ordinator Sell

Co-ordinator Jyoti TEQIP-II

Director MSD

# Attendance Sheet

**Research Methods for Engineers (31/05/2016 to 04/06/2016)**

Sr no	Name	Sign
1	Gurwant Singh Gill	Gurwant Gill
2	Gulvir Singh	Gulvir Singh
3	Harnam Singh Farwaha	Harnam Singh
4	Jagjit Kaur	Jagjit Kaur
5	Chatwant Singh	Chatwant Singh
6	Amrinder Singh Pannu	Amrinder Singh Pannu
7	Suhel	Suhel
8	Samriti	Samriti
9	Pardeep Kumar	Pardeep Kumar
10	Harjot	Harjot Singh
11	Pardeep	Pardeep Singh
12	Kuldeep Kumar	Kuldeep Kumar
13	Harjinder Singh	Harjinder Singh
14	Harkomaldeep	Harkomaldeep
15	Samdeep Kaur	Samdeep Kaur
16	Harjit Singh	Harjit Singh
17	Harwinder Singh	Harwinder Singh
18	Partap Singh	Partap Singh
19	Jagjot Singh	Jagjot Singh
20	Rupinderjit kaur	Rupinderjit Kaur
21	Karanveer	Karanveer
22	Sukhraj Singh	Sukhraj Singh
23	Dev Kumar	Dev Kumar
24	Parampreet	Parampreet



25	Riya Kumari	Riya Kumari
26	Jagatjot	Jagatjot
27	Gurjant Singh	Gurjant Singh
28	Harveer	Harveer
29	Puneetpal	Puneetpal
30	Jagwinder Singh	Jagwinder Singh
31	Lata Kumari	Lata Kumari
32	Jatinder Singh	Jatinder Singh
33	Riya Bansal	Riya Bansal
34	Pawandeep	Pawandeep
35	Jotpreet	Jotpreet
36	Kulvir Singh	Kulvir Singh
37	Harkomal	Harkomal
38	Jagjeevanpal	Jagjeevanpal
39	Jagatveer	Jagatveer
40	Jagdev Singh	Jagdev Singh
41	Gurjot Kaur	Gurjot Kaur
42	Heena Malhotra	Heena Malhotra
43	Sapna	Sapna
44	Harwinder Singh	Harwinder Singh
45	Hardeep Kumar	Hardeep Kumar

# **Guru Nanak Dev Engineering College, Ludhiana**

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956)

## **Department of Mechanical Engineering**

### **Consolidated report on Faculty development program**

The faculty development program was organized by the mechanical engineering department on dated, 31<sup>st</sup> May, 2016 to 4<sup>th</sup> June, 2016 under the guidance of Director GNDEC Ludhiana & Head of the dept. Mechanical engineering GNDEC Ludhiana (sponsorship by TEQIP-II) on topic **Research methods for engineers**. The programme was designed especially for the faculty & researcher in different fields of mechanical engineering.

The experts from IIT's, NIT's & other reputed institutions were delivered lectures followed by practice sessions on relevant software's. About forty participants from all regions were successfully attended this programme and enhanced their knowledge theoretically as well as practically. The expertise mainly focused on the practical sessions so that the researcher and academicians took the required benefits. Around 45 participants were present in this FDP.

### **Objective of the programme**

1. To enhance the capabilities of teaching faculty in the domain to choose better research methods for their research applications.
2. Practice on software applications like SPSS & MINI TAB.

### **Sessions of the programme**

Session I:	09:30 a.m. TO 11.00 a.m.
	Tea break (11:00 a.m. to 11:45a.m.)
Session II:	11:15 a.m. TO 12.45 p.m.
	Lunch (12:45 p.m. to 01:30 p.m.)
Session III:	01:30 p.m. TO 03.00 p.m.
	Tea break (3:00 p.m. to 03:15p.m.)
Session IV:	03:15 p.m. TO 4.45 p.m.



### Key points of the programme

- Introduction to engineering research
- Literature review
- Statistical analysis
- Optimization techniques
- Simulation modeling
- Survey methods
- Experimental techniques
- Design of experiments
- Research communication
- Practical sessions on different software's

### Programme schedule & topic covered

		Speaker's	Contents
Day1	Session1 Registration & inauguration	Dr. Schijpal Singh	Introduction about FDP
		Dr. A.P. Singh(Dean P.T.U)	Applications of research
		Dr. M.S. Saini(Director GNDEC)	Advancement in engineering and innovation
	Session 2	Dr. J.S. Khamba (Director COE Pbi. Uni.)	Introduction to engineering research. • What is research? •Criteria for good research •Problems in research •Research process •Research design and methodology Etc.

	Session 3	Dr. Seema Sharma.(IIT Delhi)	Hypothesis testing •ANOVA and MANOVA. •One-Way ANOVA •Factorial design
	Session 4	Dr. Seema Sharma.(IIT Delhi)	Hypothesis testing •Two way ANOVA •Hypothesis testing •Null Hypothesis •Alternative Hypothesis
Day 2	Session1	Dr. M.K. Barua(IIT Roorkee)	Multi Variate analysis(part-1) •Factor analysis •Factor analysis design process •Rotational approach
	Session2	Dr. M.K. Barua(IIT Roorkee)	Multi Variate analysis(part-1) •Scree test for HBAT •component analysis •Two sample test and ANOVA
	Session 3	Dr. Khushdeep Dharni.(PAU, Ludhiana)	Data analysis by SPSS, And excel sheet.
	Session 4	Dr. Khushdeep Dharni.(PAU, Ludhiana)	Hand on experience on excel sheet
		Dr. Harwinder singh.(GNDEC )	Implementation of ANOVA. •Statistical techniques
Day 3	Session1	Dr. R.K .Garg(NIT Jalandhar)	Design of experiments. •Design of Experiments (DOE) •Basic Idea •Factorial Design
	Session2	Dr. R.K .Garg(NIT Jalandhar)	Design of experiments. •Fractional Factorial Design •Simple Design

	Session 3	Dr. Harkesh Kumar Kansal.(UIET PU)	Hand on experience on DOE software's •Taguchi techniques. •RSM.
	Session 4	Dr. Harkesh Kumar Kansal.(UIET PU)	Hand on experience on DOE software's •Mini tab 16.0
Day 4	Session1	Dr. Jagwinder singh (NIT Jalandhar)	Multi Variate analysis(part-II) •Cluster Analysis •Discriminant analysis.
	Session2	Dr. Jagwinder singh (NIT Jalandhar)	Multi Variate analysis(part-II) •Factor analysis on SPSS. •Multiple regression
	Session 3	Dr. Inderdeep singh.(IIT Roorkee)	Imaging as a research tool •Finite modelling and analysis. •Introduction about Composite.
	Session 4	Dr. Inderdeep singh.(IIT Roorkee)	Imaging as a research tool •Applications of composites
Day 5	Session1	Dr. Rupinder Singh (GNDEC Ludhiana)	Research communication funding opportunities.
	Session2	Dr. Rupinder Singh (GNDEC Ludhiana)  Dr. S.P.Singh(IIT Delhi)	Research communication funding opportunities. •Funding agencies in India.  Modeling & Simulation. Simulation based engineering.
	Session 3	Dr. Akshay Girdhar(GNDEC)  Dr. Sehijpal singh.(GNDEC)	Handling Plagiarism issues in research.  Basics of research paper writing and publishing •Hourglass Model •Basics of research paper



			•Writing and publishing of technical paper
	Session 4	Dr. Pardeep kumar.(IIT Roorkee)	Taguchi methods •Applications of research methods

## Organizing Committee

Patron

Prof. (Dr.) M.S. Saini (Director)

Chief Co-ordinator

Prof. (Dr.) Sehijpal Singh (HOD)

Coordinators

Prof. (Dr.) Harwinder Singh

Prof. (Dr.) Paramjit Singh

Co- Coordinators

Prof. Ardamanbir Singh

Prof. Aprinder Singh

Organizing committee (Faculty GNDEC Dept. of ME)

Hi,



**2016-2017**

## **ORGINIZING TEAM**

Patron

Dr. M. S. Saini, Director

Chairman

Dr. Sehijpal Singh, HOD (Mech.)

Coordinator

Dr. Gurinder Singh Brar, AP (Mech.)

Co-Coordinator

Er. Aprinder Singh Sandhu, AP (Mech.)

## **INTRODUCTION**

The pace of change in technology has taken all of us by surprise. Due to globalization, technology is passing through a very critical phase, giving high competition for final product. Gone are the days when 2D drawings were used. In today's world 3D drawings/model have become an emerging area in the design field. This course is suitable for all those who want complete exposure of 3D modeling and finite element analysis. The course will not only help designers to learn 3D software but will also help them to understand the practical applications of the tool. Sufficient time will be devoted on building correct modeling concepts so that designers can handle any kind of modeling/analysis problem in an efficient manner.

## **National Workshop**

**on**

# **DESIGN OF MACHINE ELEMENTS USING NASTRAN SOFTWARE**

**(Under TEQIP-II)**

**16<sup>th</sup> – 17<sup>th</sup> September, 2016**



**Organized by:  
Mechanical Engineering Department,  
Guru Nanak Dev Engineering College,  
Gill Road, Ludhiana – 141006  
Punjab, INDIA**

#### GENERAL INFORMATION

Guru Nanak Dev Engineering College, Ludhiana (established in 1956), is one of the oldest and a premier Engineering Institute of India. The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla state highway. Ludhiana city is a well known Industrial hub in Northern India and is well connected by direct rail service with all parts of India. The beautiful campus is about 7 Kms. away from railway station. The weather in the month of September in Ludhiana is mild (28°C to 34°C).

#### HOW TO APPLY

The participant should send the attached application form or a Xerox copy of the same along with statement of 500 words mentioning how this workshop will be helpful to the participant.

#### ADDRESS FOR CORRESPONDENCE

Dr. Gurinder Singh Brar, Assistant Professor,  
Department of Mechanical Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana. Pin – 141006.  
Mobile: 91-9781991160.  
E-mail: brar\_gurinder@gndec.ac.in

#### DEPARTMENT AND FACULTY

The Mechanical Engineering Department is NBA accredited and runs both UG and PG courses. The department has state of art facilities for research and development. It has well established CAD and Simulation Lab and Computational Lab equipped with sufficient number of computers and latest software.

##### Resource persons:

Er. Abhinav, CSM Softwares, New Delhi.  
Dr. Gurinder Singh Brar.  
Er. Aprinder Singh Sandhu.  
Er. Khushpreet Singh, Consultant, Future Tech Design, Gurgaon

#### ELIGIBILITY CRITERIA

Students pursuing B. Tech. (second year onwards), M. Tech. and Ph. D. in Mechanical or Production Engineering are eligible to apply for participation.

#### REGISTRATION

There will be no registration fee. As seats are limited so participants are required to send the application form and statement of purpose (500 words) to the Coordinator by 15<sup>th</sup> September, 2016. Selection will be made based on statement of purpose and profile of the candidate.

#### National Workshop

on

#### DESIGN OF MACHINE ELEMENTS USING NASTRAN SOFTWARE (Under TEQIP-II)

16<sup>th</sup> – 17<sup>th</sup> September, 2016

#### APPLICATION FORM

Name: .....

Father's Name: .....

Date of Birth: .....

Level (B.Tech./M.Tech./PhD): .....

Branch: .....

Name of College: .....

.....

.....

Mailing Address: .....

.....

.....

E-mail: .....

Contact No. : .....

Please register me for the above workshop.

Signature of the Applicant



**Design of Machine Elements  
using NASTRAN Software**





**Design of Machine Elements  
using NASTRAN Software**

# Attendance Sheet

**Design of Machine Elements using Nastran Software (16/09/2016 to 17/09/2016)**

Sr no	Name	Sign
1	Harjot	Harjot
2	Gundeep Singh	Gundeep Singh
3	Kamldeep	Kamldeep
4	Harjinder Singh	Harjinder Singh
5	Jagdeep Singh	Jagdeep Singh
6	Hardeep	Hardeep
7	Sahil Bansal	S. Bansal
8	Jeevanjot	Jeevanjot
9	Harmanjot	Harmanjot
10	Harkeerat Singh	H. Singh
11	Komal	Komal
12	Jyoti Verma	Jyoti Verma
13	Harjap Singh	H. Singh
14	Harmanjot	Harmanjot
15	Kuldeep Kumar	Kuldeep Kumar
16	Harjinder Singh	H. Singh
17	Ishpreet Kaur	Ishpreet Kaur
18	Harmeet Singh	H. Singh
19	Harminder	Harminder
20	Satwant Singh	Satwant Singh
21	Neha	Neha
22	Manjot Singh	Manjot Singh
23	Parminderjeet	Parminderjeet
24	Rupinder Singh	R. Singh
25	Prajwal	Prajwal
26	Harmeet Singh	H. Singh

27	Parampreet	<u>Parampreet</u>
28	Jagpreet	<u>Jagpreet</u>
29	Hardev Singh	<u>Hardev Singh</u>
30	Manchanda	<u>Manchanda</u>
31	Rahul Kumar	<u>Rahul Kumar</u>
32	Sohel Bansal	<u>Sohel Bansal</u>
33	Jagvir Singh	<u>Jagvir Singh</u>
34	Paramjot Singh	<u>Paramjot Singh</u>
35	Jatinder Singh	<u>Jatinder Singh</u>



**Guru Nanak Dev Engineering College, Ludhiana**  
An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956  
**Department of Mechanical Engineering**

**Activity report**

**Workshop on 'Design of machine elements using NASTRAN software'**

The workshop was organized by the mechanical engineering department from 16 Sept. 2016 to 17th Sept 2016 on topic 'Design of machine elements using NASTRAN software'. The workshop was designed especially for the Faculty Members, Research Scholars, and students. Nastran workshop is designed to provide learners with the rudimentary knowledge of design and analysis. The trainees learn linear and non-linear FEA, its applications and modeling techniques. Throughout this training, concepts are systematically introduced and reinforced to help participants learn in a better way. 35 participants were present in this workshop.

11/

## About Institute

Guru Nanak Dev Engineering College (GNDEC), Ludhiana, established in 1956, is one of the oldest and a premier Engineering Institute of India. The Institute is set up on 88 acres of sprawling pristine land along SH 11, i.e. Gill Road (Ludhiana-Malerkotla Highway). The foundation stone of the college was laid by Honourable Dr. Rajendra Prasad Ji, President of India on April 8, 1956. GNDEC is now an autonomous college under UGC Act 1956 [2(f) and 12(B)] and also accredited by NAAC with 'A' grade. The Institution has seven Under-Graduate (UG) programmes, thirteen Post-Graduate (PG) programmes, besides being a QIP centre for Ph.D. All the undergraduate courses of the Institute are accredited by National Board of Accreditation (NBA), New Delhi.

## About Department

Computer Science & Engineering Department was established in 1997 and has been accredited thrice by National Board of Accreditation (NBA). Department is currently offering undergraduate and postgraduate programmes with an intake of 180 and 18 respectively. Ph.D. programme is also being offered in the department. The department has various laboratories equipped with state-of-the-art computing facilities to support the research and teaching activities. The research activities in the department involve fields like natural language processing, image processing, big data, cloud computing, software engineering, network security, etc.

## Address for Correspondence

Er. Sukhjot Singh Sehra  
Department of Computer Science & Engineering  
Guru Nanak Dev Engineering College, Ludhiana,  
Punjab – 141006  
Phone: +91 98559 59200 Email: [ids@gndec.ac.in](mailto:ids@gndec.ac.in)

**TEQIP-II Sponsored**

**Two Day Workshop**

**on**

# Insights of Data Science

**(October 21-22, 2016)**



**Patron**

Dr. M.S. Saini, Director

**Chairman**

Dr. Parminder Singh  
HoD Computer Sci. & Engg.

**Coordinators**

Er. Sumeet Kaur Sehra  
Er. Sukhjot Singh Sehra

**Organised by**

**Department of Computer Science & Engineering**

Guru Nanak Dev Engineering College, Ludhiana, Punjab – 141006

[An Autonomous College u/s 2(f) and 12(B) of UGC Act. 1956]

## Objective

The objective of this two day workshop is to provide insight into data science, an interdisciplinary field about processes and systems to extract knowledge or insights from data in various forms, either structured or unstructured. This area is of utmost importance as there is an significant and growing demand for data science professionals and researchers in businesses, public agencies, and non-profits organisations. The selection of data science tools is based on the philosophy to gain insight to the methodologies used in the data science process and how to successfully harness machine learning to convert data into actionable business insight. This workshop will introduce to participants the various skills that go into data science, provide practical walk-through of relevant languages and tools and lay down a study plan for moving forward in this field. The workshop would focus on:

- Introduction to Data Science
- Machine learning
- Programming language
- Open source Data Science Tools

## Who can apply?

The workshop is designed for the research scholars, academicians and professionals, who are keen to learn innovative and time saving tools suitable for fulfilling their data analysis needs.

The under-graduate and post-graduate students those are interested to start their career in this upcoming field of professional growth.

## Workshop Venue, Dates and Timings

Venue: Seminar Hall, Department of Computer Sci. & Engg.

Dates: October 21-22, 2016

Timings: 09:00 a.m. to 05:30 p.m.

## Resource Persons

Resource persons to conduct the workshop are experts from industry and academia with excellent track record of accomplishment in technical education, research and out-reach.

## Boarding and Lodging

Accommodation is available in the College Hostels and Guest House on reasonable charges on prior request.

## Registration Fee

The registration fee for attending this workshop is as follows:

- Research scholars : Rs. 500/-
- Faculty from academics: Rs. 1000/-
- Industrial persons and others: Rs. 1500/-

The applicants are required to submit their application along with the registration fee in the form of a demand draft, drawn in favour of "Director, Guru Nanak Dev Engineering College", payable at Ludhiana.

## How to register for the workshop?

Please visit [http://gndec.ac.in/ids\\_workshop](http://gndec.ac.in/ids_workshop) for electronically fillable registration form, take print and email the scanned copies of duly signed application form, demand draft and Identity card to [ids@gndec.ac.in](mailto:ids@gndec.ac.in), before last date of registration. The registration for limited seats will be done on first-come-first basis up-to ~~17<sup>th</sup> October, 2016~~ 19<sup>th</sup> October, 2016. Bring the hard-copies of above documents at registration desk.

## How to reach?

The college is located at a distance of 5 km from Bus Stand, 6 km from Railway Station, and 115 km from Chandigarh Airport. There is availability of all sorts of public and private transports from stated places. The nearest landmark to the college is fly over on Gill Road along Sidhwan Canal.



Department of Computer Science and Engineering

Ref. No. CSE/1072

Date: 13.10.16

Head

Dept. of Applied Sciences

civil  
mech

Elect <sup>14/10/16</sup>  
ECE  
Prod

MBA

MCA

IT <sup>14/10/16</sup>  
14/10/16

Department of Computer Science and Engineering is organising TEQIP-II sponsored two day workshop on 'Insights of Data Science' on 21st and 22nd October, 2016. The detailed brochure of workshop is attached herewith this letter. Kindly encourage the research scholars and faculty members for maximum participation in the workshop.

The last date of registration is extended upto 19th Oct. 2016 (5:00pm).

R.14  
14/10/16

14/10/16

Head  
Dept. of Computer Sc. & Engg.

14/10/16

14/10/16

MBA  
Asst. Prof.  
14/10/16

**Department of Computer Science & Engineering**  
Workshop on “Insights of Data Science”  
Workshop Photos with Caption







## WORKSHOP ON "INSIGHTS OF DATA SCIENCE"

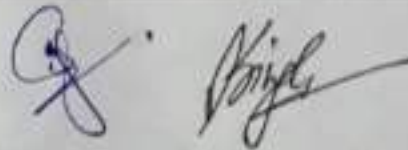
Date:21/10/2016-22/10/2016

## List of Participants

SR NO.	ID	NAME	INSTITUTE
1	182	Upasna Sharma	GNDEC, Ludhiana
2	183	Roopali Kalra	GNDEC, Ludhiana
3	184	Rajdeep Kaur	GNDEC, Ludhiana
4	185	Sonali Arora	GNDEC, Ludhiana
5	186	Kamalpreet Kaur Grewal	GNDEC, Ludhiana
6	187	Manjinder Kaur	GNDEC, Ludhiana
7	188	Priyanka Arora	GNDEC, Ludhiana
8	189	Kamaldeep Kaur	GNDEC, Ludhiana
9	191	Sagar Taneja	Punjab Remote Sensing Centre, Ludhiana
10	192	Amardeep Singh	Punjab Remote Sensing Centre, Ludhiana
11	193	Dheeraj Gambhir	Punjab Remote Sensing Centre, Ludhiana
12	194	Manjot Kaur Gill	GNDEC, Ludhiana
13	195	Sarpreet Kaur Gill	GNDEC, Ludhiana
14	196	Geetika Gupta	GNDEC, Ludhiana
15	197	Gagandeep Kaur	GNDEC, Ludhiana
16	198	Staffi Verma	GNDEC, Ludhiana
17	199	Ramesh	Punjabi University, Patiala
18	201	Jasmine Kaur	GNDEC, Ludhiana
19	202	Swarnjit Singh	SBAS Khalsa College, Sandaur
20	204	Kapil Dev Goyal	Punjabi University, Patiala
21	205	Navpuneet Singh Mehrok	Vardhman Textiles Ltd.
22	206	Amit Goyal	Vardhman Textiles Ltd.
23	207	Anmol Kaur	Punjabi University, Patiala
24	208	Jagsir Singh	Punjabi University, Patiala
25	209	Gurleen Kaur	Punjabi University, Patiala
26	210	Nisha Bharti	Punjabi University, Patiala
27	211	Simranjeet Kaur	Punjabi University, Patiala
28	213	Hardeep Singh	Guru Nanak Dev Polytechnic, Ludhiana
29	214	Gursimar Kaur	GNDEC, Ludhiana
30	215	Rupinder Kaur	BBSBEC, Fatehgarh Sahib
31	216	Amandeep Kaur	BBSBEC, Fatehgarh Sahib
32	217	Twinkle	Punjabi University, Patiala
33	218	Manpreet Kaur	GNDEC, Ludhiana

registration\_data

34	219	Supreet Kaur	GNDEC, Ludhiana
35	220	Vivek Thapar	GNDEC, Ludhiana
36	221	Harshdeep Kaur	BBSBEC, Fatehgarh Sahib
37	222	Pavneet Singh	GNDEC, Ludhiana
38	223	Jaswant Singh	GNDEC, Ludhiana
39	224	Sandeep Kaur	BBSBEC, Fatehgarh Sahib
40	225	Ramanjot Kaur	BBSBEC, Fatehgarh Sahib
41	227	Maninder Kaur	GNDEC, Ludhiana
42	228	Gurinder Kaur	GNDEC, Ludhiana
43	229	Navjot Kaur	GNDEC, Ludhiana
44	230	Kiranjot Kaur	GNDEC, Ludhiana
45	231	Navjeet Kaur	GNDEC, Ludhiana
46	232	Hitika Gupta	GNDEC, Ludhiana
47	233	Naveen Raturi	GNDEC, Ludhiana
48	234	Maninder Kaur	GNDEC, Ludhiana
49	235	Husanmeet Singh	GNDEC, Ludhiana
50	236	Jagvir Singh	Quest Group of Institutions
51	237	Kirandeep Kaur	Bhutta College of Engg and Tech
52	238	Amandeep Kaur	Punjabi University, Patiala
53	239	Parmjeet Kaur	GNDEC, Ludhiana



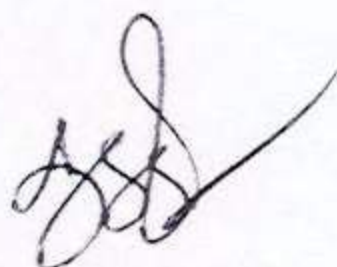


## **Activity Report**

### **Two Day Workshop on Insights of Data Science**

The Department of Computer Science & Engineering organised TEQIP-II sponsored two day workshop on 'Insights of Data Science' during 21st & 22nd October, 2016. The workshop started with inaugural sessions on 21st October, 2016, Dr. Sarabjot Singh (Founder and Chief Data Scientist at Tatra Data, New Delhi) was the chief guest of the day and Director GNDEC, Ludhiana presided over the function. Dr Parminder Singh, chairman of the workshop emphasised on the need of data science in diverse areas. Fifty Three participants including faculty and research scholars (Ph.D. and M.Tech) from various institutes registered for the workshop.

The workshop sessions were delivered by the persons from Industry, Research organisation (DRDO) and Academia. The participants learnt data science and its practical aspects and suitability to particular types of applications. During lab session the participants were be guided on the selection of tools for Data science and has hands on session with R- language using Jupyter-Notebook. This workshop enabled the academicians to direct their research deeper into data science. The workshop ended with feedback session. Er. Sumeet Kaur Sehra and Mr. Sukhjit Singh Sehra (Coordinators) thanked the participants.



(Coordinator Workshop)



## CONTACT

**Prof. Gurpurneet Kaur**  
Assistant Professor  
Department of Electronics &  
Communication Engg., GNDEC,  
Ludhiana.  
Phone: 0161-5064765(O)  
E-Mail : [gne.ecefdp@gmail.com](mailto:gne.ecefdp@gmail.com)

**Prof. Naazia Makkar**  
Assistant Professor  
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Ludhiana.  
Phone: 0161-5064765(O)  
E-Mail : [gne.ecefdp@gmail.com](mailto:gne.ecefdp@gmail.com)

## GENERAL INFORMATION

Guru Nanak Dev Engineering College, Ludhiana is the oldest and a premier Engineering Institute of India. It is an autonomous college under UGC Act 1956 [2(f) and 12(B)]. The Institute is setup on 88 acres of sprawling pristine land on Ludhiana-Malerkotla state highway. Ludhiana city is a well known Industrial hub in Northern India and is well connected by direct rail service with all parts of India. The beautiful campus is about 7 kms away from railway station. The weather in the month of July in Ludhiana is hot with temperature around 25°C.

## REGISTRATION

There is no Registration fee for the participants from academic Institutes. Participants from industry/ field shall have to pay registration fee of Rs. 1,000/-

## TEQIP-II Sponsored TWO DAY WORKSHOP

on  
"EFFECTIVE TEACHING  
PEDAGOGY & RESEARCH  
METHODOLOGY"  
(March 17, 2017 to March 18, 2017)



Chief Coordinator

**Dr. Sandeep Singh Gill**

Coordinators

**Dr. Munish Rattan**  
**Prof. Narwant Singh Grewal**

Organising Secretary

**Prof. Gurpurneet Kaur**  
**Prof. Naazia Makkar**

Organized by  
Department of Electronics & Communication  
Engineering  
**GURU NANAK DEV ENGINEERING  
COLLEGE**

Ludhiana, Punjab - 141006

Phone No. 0161-5064765

E-mail: [gne.ecefdp@gmail.com](mailto:gne.ecefdp@gmail.com)

## ABOUT

Pedagogy is the art (and science) of teaching. The word teaching is a simple word but its meaning or significant is not so and the term effective teaching demands various integrated activities in teaching-learning system. Effective teachers use an array of teaching strategies because there is no single, universal approach that suits all situations.

Scientific research is a chaotic business, stumbling along amidst red herrings, errors and truly, creative insights. Research is an investigation of finding solutions to scientific and social problems through objective and systematic analysis. It is a search for knowledge, that is, a discovery of hidden truths. Only through research it is possible to make progress in a field. The results of scientific research very often force a change in the philosophical view of problems which extend far beyond the restricted domain of science itself.

The course aims at imparting skills for effective teaching pedagogy and research methodology.

## COURSE CONTENTS

- Essentials of Effective Research.
- Effective Teaching.
- Modern Teaching Tools.
- Teaching Strategies.
- Research definition, types & framing of research problems.
- Research design in context of Engg. Problems.
- Hypotheses Testing

## FACULTY

Experts from NITTR, Chandigarh and Deenbandhu Chhotu Ram University of Science and Technology, Sonapat besides faculty from our institute will deliver expert talks.

## ELIGIBILITY CRITERIA

The program is interdisciplinary in nature and has been specifically designed for all Engineering Sciences & Management PG students and newly joined Faculty members.

## BOARDING AND LODGING

Accommodation shall be provided in college hostels free of charge. However, guest house/hotel/lodge may be booked on payment basis if intimated well in advance.

## IMPORTANT DATES

Last date for receiving Application: March 15, 2017  
Notification of Acceptance: March 16, 2017

TEQIP-II Sponsored Workshop on

## "EFFECTIVE TEACHING PEDAGOGY & RESEARCH METHODOLOGY"

(March 17, 2017 to March 18, 2017)

## APPLICATION FORM

Name: .....

Father's Name: .....

Date of Birth: .....

Academic Qualification: .....

Designation: .....

Address of Sponsoring Authority: .....

Experience (years) : .....

Mobile No. ....

E-Mail : .....

Accommodation required. Yes/No

Date: \_\_\_\_\_  
Signature of Applicant

## SPONSERSHIP CERTIFICATE

The applicant will be permitted to participate in the above programme, if selected.

Signature of sponsoring authority

**TEQIP-II SPONSORED  
WORKSHOP  
ON  
Effective Teaching Pedagogy and Research Methodology  
(17th - 18th March, 2017)**

**SCHEDULE**

**Day 1: 17 March, 2017 (Friday)**

9:30am-11:00am	11:00am-11:15am	11:15am-12:45pm	12:45pm-1:45pm	1:45pm-3:15pm	3:15pm-3:30pm	3:30pm-5:00pm
Session - 1.1	Tea	Session - 1.2	Lunch	Session - 1.3	Tea	Session - 1.4
Session - 1.1	Dr. Harvinder Singh, GNDEC Ludhiana		Essential of effective research			
Session - 1.2	Dr. Vidhu Mohan, Punjab University Chandigarh		Effective Teaching			
Session - 1.3	Dr. Vidhu Mohan, Punjab University Chandigarh		Modern Teaching Tools			
Session - 1.4	Dr. Harvinder Singh, GNDEC Ludhiana		Teaching strategies			

**Day 2: 18 March, 2017 (Saturday)**

9:30am-11:00am	11:00am-11:15am	11:15am-12:45pm	12:45pm-1:45pm	1:45pm-3:15pm	3:15pm-3:30pm	3:30pm-5:00pm
Session - 2.1	Tea	Session - 2.2	Lunch	Session - 2.3	Tea	Session - 2.4
Session - 2.1	Dr. J. S. Saini, D. C. R. Univ. of Sci. and Tech. Murthal, Sonapat		Research definition, types and framing of research problems			
Session - 2.2	Dr. J. S. Saini, D. C. R. Univ. of Sci. and Tech. Murthal, Sonapat		Research design in context of engineering problems			
Session - 2.3	Prof. Arvind Dhingra, GNDEC Ludhiana		Pedagogical analysis			
Session - 2.4	Valediction					

--- ORGANISED BY ---

Department of Electronics and Communication Engineering  
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA



# Guru Nanak Dev Engineering College Ludhiana

(Department of Electronics & Communication Engineering)

(An Autonomous College under UGC Act.)

No.ECE/ 1654

Date: 27/3/17

Director, GNDEC

Through

Coordinator TEQIP-II,

GNDEC, Ludhiana.

The Department of Electronics and Communication Engineering is planning to organize a workshop of two days under TEQIP-II, from 17 March 2017 (Friday) to 18 March, 2017 (Saturday). The workshop is of multidisciplinary nature and is titled as "Effective Teaching Pedagogy and Research Methodology". It is targeted at PG students and young engineers. You are requested to allow us to conduct the workshop and sanction Rs. 1,00,000/- as per TEQIP-II rules. The budget estimate is attached along with.


Thanking You,

Yours sincerely,

  
HOD (ECE)

may be allowed as  
the workshop is essential for  
PG accreditation

  
Allowed

To file  




# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956

NBA Accredited UG Programmes under Tier-I (Washington Accord), "A" Grade NAAC Accredited, TCS Accredited  
AICTE Approved, Punjab Govt. Aided Status - Affiliated to L. K. Gujral Punjab Technical University, ISO : 9001:2008 Certified

Ref. No. 1689

Dated 14/3/17

## Invitation Letter

Dr. J. S. Saini,

Professor and Chairman EED,

D.C.R. University of Science and Technology,

Murthal, Sonapat

Sub.: Invitation for expert talk

Dear Sir,

You are cordially invited for the expert talk in two day TEQIP-II Sponsored workshop on "Effective Teaching Pedagogy and Research methodology" to be held in ECE department, Guru Nanak Dev Engineering College, Ludhiana from March 17, 2017 to March 18, 2017. The schedule of your expert talk is as under:

Topic: 1. Research definition, types and framing of research problems

2. Research design in context of engineering problems

Date: 18-03-17 (Saturday)

Time: 9.30 am to 11.00 am and 11.15 am to 12.45 pm

You will be paid honorarium and TA as per norms.

With regards,

*Shweta Sachdev*  
HOD (ECE)  
Guru Nanak Dev Engineering College, Ludhiana

Workshop on "Effective Teaching Pedagogy and Research Methodology" on March 17-18, 2017

Receipt of Certificates:

S.NO.	Name of the Candidate	Signature
1.	Dr. Kishan Typhi	18/3
2.	Karnaljit Kaur Dhillon	Karnaljit
3.	Manjot Kaur Gill	Manjot
4.	Chahat Jain	Chahat
5.	Narnet Kaur	Narnet
6.	Harmindee Rao	Harmindee
7.	Gurpreet Kaur	Gurpreet
8.	Dr. Amit Kumar	Amit
9.	Dr. K.S. Mann	K.S. Mann
10.	PAKAT BUMBAL	PAKAT
11.	ADAR SHARMA	ADAR
12.	MANPREET SINGH	MANPREET
13.	M.S.M. KANSAI	M.S.M.
14.	Gurjit Kaur	Gurjit
15.	Balwinder Singh Phulland	Balwinder
16.	NAAZIA MAKKAR	NAAZIA
17.	Harmindee Rao	Harmindee
18.	Jaspreet Kaur	Jaspreet
19.	Geetika	Geetika
20.	Gagandeep Kaur Gill	Gagandeep
21.	Kapil Sharma	Kapil
22.	Harmindee Singh Gill	Harmindee
23.	Narnet Singh Phangy	Narnet
24.	Arneet Salaria	Arneet
25.	Narwant Singh Grewal	Narwant
26.	Sandeep Singh Grewal	Sandeep
27.	Anamika Kaur Grewal	Anamika



28	Jasmeet Kaur	Haur
29	MUNISH RATTAN	Munish Rattan
30	JASBIR SINGH LAROI	J
31	KANWAL PREET SAHNI	Q Sahni
32	RAHUL SINGH	Rh
33	baljant Kaur	Sank
34	RUPINDER TIT SINGH	Ru
35	AMANPREET KAUR SODHI	Amanpreet
36	Diya	Diya
37	Prashant Garg	Prashant
38	Rajbir Kaur	Rajbir
39	Anind Singh	Anind Singh
40	Sukhinder Singh	Sukh
41	Jaran Bralle	JB
42	Harpreet Kaur	Harpreet
43	Amandeep Kaur	Amandeep
44	Parvinder Singh	Parvinder
45	Mandeep Kaur	Mandeep
46	Vivek Thapar	Vivek Thapar
47	Kangden Kaur	Kangden
48	Sandeep Kumar Singh	Sandeep
49	Harpreet Kaur (App Sci)	Harvir Singh (EEF class)
50		



Expert Dr. Vidhu Mohan, PU Chandigarh, during the session



**Guru Nanak Dev Engineering College, Ludhiana**

(An Autonomous College (is 2(I) and 12(B) of UGC Act 1956)



# **TEQIP-II Sponsored TWO DAY WORKSHOP**

On

## **EFFECTIVE TEACHING PEDAGOGY & RESEARCH METHODOLOGY**

March 17, 2017 to March 18, 2017

Organised By

Department of Electronics & Communication Engineering

YOU ARE  
CAMERA ST







Coordinator honouring the session expert Dr. Arvind Dhingra, GNDEC, Ludhiana



Dr. J.S.Saini, DCRUST Murthal, Expert of the session



Participants during the session





Dr. Harwinder Singh, GNDEC Ludhiana delivering expert talk

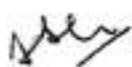
**Report on**  
**Two day TEQIP sponsored Workshop on "Effective Teaching Pedagogy and Research Methodology" held from 17-18 March, 2017**

**Coordinator, TEQIP-II,**

The department of Electronics and communication successfully organized two day workshop on "Effective Teaching Pedagogy and Research Methodology" from 17-18 March, 2017. The program was interdisciplinary in nature and had been specifically designed for all Engineering Sciences & Management PG students and newly joined Faculty members. The aim of the workshop was to impart skills for effective teaching pedagogy and research methodology. Pedagogy is the art (and science) of teaching. The word teaching is a simple word but its meaning or significant is not so and the term effective teaching demands various integrated activities in teaching-learning system. Effective teachers use an array of teaching strategies because there is no single, universal approach that suits all situations. Scientific research is a chaotic business, stumbling along amidst red herrings, errors and truly, creative insights. Research is an investigation of finding solutions to scientific and social problems through objective and systematic analysis. It is a search for knowledge, that is, a discovery of hidden truths. Only through research it is possible to make progress in a field. The results of scientific research very often force a change in the philosophical view of problems which extend far beyond the restricted domain of science itself.

The focus of the workshop was to provide the participants the advanced knowledge in the teaching and research methodology. To accomplish this aim, first day of the workshop covered the topics like essential of effective research, effective teaching, modern teaching tools, and teaching strategies. In the second day of the workshop, topics like research definition, types and framing of research problems, research design in context of engineering problems and Pedagogical analysis have been discussed.

The total participants in the workshop were around 50. The resource persons from GNDEC Ludhiana and other reputed institutions including D. C. R. Univ. of Sci. and Tech, Murthal, Sonapat, Punjab University Chandigarh have shared their expertise among the participants.



**Chief Coordinator**



**2017-2018**



GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
DEPARTMENT OF PRODUCTION ENGINEERING

CIRCULAR

Ref. No. PE/45/505-1

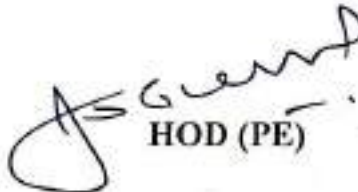
Dated:-17/08/2017

HOD<sup>rs</sup> and the faculty members of (CE, ME, PE, CSE, IT, EE, ECE)

GNDEC, Ludhiana.

Sir,

This is for your kind information that the department of Production Engineering is going to organize One week course from 04<sup>th</sup> -08<sup>th</sup> September, 2017 under QIP. You are requested to send your consent through proper channel to attend the same. Brochure for the same has been attached.

  
HOD (PE)

Completed Registration form along with 1-page write-up (on reasons to attend this course) should be sent by Email to [gip.prod.gndec@gmail.com](mailto:gip.prod.gndec@gmail.com).

**Dr. Rupinder Singh**  
Course Coordinator

**Pf. Manjot Singh Bedi**  
Course Co-Coordinator

Department of Production Engineering  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab, 141006

Please send single email with attachments as:  
(a) the 1-page write-up and (b) scanned copy of the filled-in and signed form. The title of the email should be "QIP course on Optimization life enhancement of biomedical implants by additive manufacturing and protective coatings".

### **IMPORTANT DATES**

**Deadline for submitting Application: 21 Aug, 2017**

**Notification of Acceptance: 28 Aug, 2017**

**Course Dates: 4 – 8 September, 2017**

- Incomplete application forms will not be entertained.

### **VENUE FOR COURSE**

Seminar Hall, Central Workshop, GNDEC, Ludhiana.

### **DATE & TIME FOR REGISTRATION**

September 4, 2017, 9 AM at the venue for the course.

### **ELIGIBILITY**

Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course.

### **COURSE EVALUATION**

Successful participants would be awarded 'Course Completion Certificate'.

### **REGISTRATION**

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a Cheque/Demand Draft of Rs. 1000/- in the name of "Director, GNDEC, Ludhiana".

The above amount will be refunded to the participant if he/she attends the course. In case a participant does not attend the course, the above amount will be forfeited. Shortlisting and confirmation of eligible candidates will be on a first come first served basis up to a maximum of 30 candidates.

### **TRANSPORT, BOARDING & LODGING**

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

### **FACULTY COORDINATOR**

Dr. Jasmaninder Singh Grewal

### **COURSE COORDINATOR**

Dr. Rupinder Singh

### **COURSE Co-COORDINATOR**

Pf. Manjot Singh Bedi

### **OTHER FACULTY MEMBER**

- Dr. G.S. Brar
- Dr. Akshay Girdhar

### **GUEST FACULTY**

- Dr. Satya Prakash (IIT Roorkee)
- Dr. J.N.Jha (MIT, Bihar)
- Dr. Sandeep Grover (YMCA Fbd.)
- Dr. Buta Singh Sidhu (MRRSPTU Bathinda)
- Dr. Sanjeev Kumar (PEC Chandigarh)
- Dr. IPS Ahuja (Pbi. Univ. Patiala)
- Dr. J.S.Dureja (Pbi. Univ. Patiala)
- Dr. O.P.Singh (BCET Gurdaspur)
- Dr. Dilbag Singh (BCET Gurdaspur)

## **QIP Short Term Course**

**On**



## ***Life Enhancement of Bio-Medical Implants by Additive Manufacturing and Protective Coatings***

**September 04 – 08, 2017**



**Department of Production Engineering  
Guru Nanak Dev Engineering College  
Ludhiana, Punjab – 141006**

**e-mail: [gip.prod.gndec@gmail.com](mailto:gip.prod.gndec@gmail.com)  
Phone: +91 98722-57575, +91 98035-66002**

## **ABOUT THE INSTITUTE**

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been straining persistently in the field of education by comprehending the need for up-liftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various Accredited graduate level B.Tech courses vis-a-vis Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Mechanical Engineering, Production Engineering, Information Technology, the institute imparts instruction in eleven Postgraduate M.Tech courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

## **ABOUT THE DEPARTMENT**

The first batch of M.Tech. (Production Engineering) started as part-time programme in 1980 followed by M.Tech. (Production Engineering) full-time programme in 1983 under Mechanical Engineering department. The department was renamed as Department of Production Engineering on January, 2009 and is functioning independently. At present it offers undergraduate and postgraduate courses in Production Engineering. The department has laboratory and workshop facilities with modern sophisticated equipment to carry out research in all areas related to Production Engineering. The faculty actively participates in sponsored research and consultancy work. Both the UG/PG courses have been accredited by NBA (Tier-I) and all the courses offered by department are AICTE approved. The department is having very good pass percentage (in

stipulated time) usually above 95% for UG/PG students. Since 2009, as independent department, Production Engineering is continuously maintaining strong International collaboration with outside world in form of joint research publications, editorial board memberships of reputed International journals.

## **OBJECTIVE OF THE COURSE**

- Application of optimization techniques for life enhancement of bio-medical implants
- Hand on experience for preparation of bio medical implants by additive manufacturing
- Lab Testing of protective coatings as per ASTM standards

## **COURSE CONTENTS**

1. Role of optimization for biomedical implants
2. Additive manufacturing for bio-medical implants
3. Biomedical/Protective coatings
4. Design of experiment (various tools for process optimization)
5. Case studies on dental/ortho implants.
6. Hand on experience for lab testing of implants.

## **COURSE BENEFICIARIES**

Faculty members pursuing Ph.D/ Research Scholars

## **BROAD SUBJECT AREA**

Manufacturing

## **RELATED DISCIPLINES**

Production/Manufacturing/Mechanical/ Bio-medical/ Bio-technology/ CSE/IT/Environment (Interdisciplinary).

**NOTE:** For additional copies of the registration form, use a photocopy of this brochure or type in the format given. For further details:

<http://www.gndec.ac.in>

QIP Short Term Course

on

## **Optimization**

**Life Enhancement of Bio-Medical Implants by  
Additive Manufacturing and Protective  
Coatings**

**September 04 – 08, 2017**

## **Registration Form**

Name (in block letters) : \_\_\_\_\_

Designation : \_\_\_\_\_

Organization : \_\_\_\_\_

Mailing Address : \_\_\_\_\_

Age : \_\_\_\_\_ Sex ( M/F): \_\_\_\_\_

Mobile : \_\_\_\_\_

Email : \_\_\_\_\_

Educational Qualifications:

Prior Exposure to such program: Yes / No

*Accommodation in Campus: YES / NO*

Signature of Applicant:






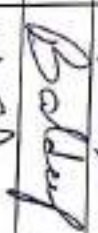
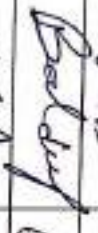








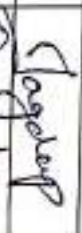

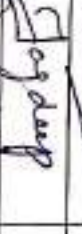
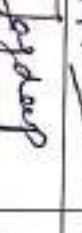
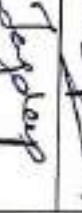
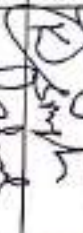









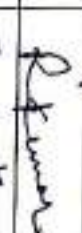




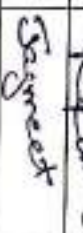
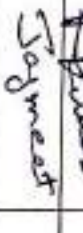

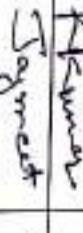

Sponsorship & signature of Head of the College / Institute (with date & seal).

*(Important: By signing above head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)*

**Form should be complete otherwise the application will be rejected**



**Attendance of students for FDP on 'Optimization Life Enhancement of Bio-Medical Implants by Additive Manufacturing and Protective Coatings'**

S. No.	Name of student	4/9/2017	5/9/2017	6/9/2017	7/9/2017	8/9/2017
1	Amrjot Singh Riat					
2	Baldeep Singh					
3	Harnam Raj Singh					
4	Jagdeep Singh Cheema					
5	Kamalpreet Singh Riat					
6	Rahul					
7	Rohit Kumar					
8	Jagmeet Singh					



# Certificate of Participation



QIP Short Term Course

on

Optimization, Life Enhancement of  
Bio-Medical Implants by Additive Manufacturing and Protective Coatings

This is awarded to Dr/Mr/Ms Anant Singh Riot

of CNDCC, Ldh for participation in QIP short term course on

"Optimization, Life Enhancement of Bio-Medical Implants by Additive Manufacturing and Protective Coatings" held from 4<sup>th</sup> September, 2017 to 8<sup>th</sup> September 2017, organized by Department of Production Engineering, Guru Nanak Dev Engineering College, Ludhiana.

RS  
Dr. Rupinder Singh  
Course Coordinator

JSGrewal  
Dr. J.S. Grewal  
Faculty Coordinator

MS  
Dr. M.S. Saini  
Director




# Certificate of Participation



QIP Short Term Course  
on  
Optimization, Life Enhancement of  
Bio-Medical Implants by Additive Manufacturing and Protective Coatings

This is awarded to Dr/Mr/Ms Rohit Kumar  
of GND EC, LDH. for participation in QIP short term course on  
"Optimization, Life Enhancement of Bio-Medical Implants by Additive Manufacturing and  
Protective Coatings" held from 4<sup>th</sup> September, 2017 to 8<sup>th</sup> September 2017, organized by Department of  
Production Engineering, Guru Nanak Dev Engineering College, Ludhiana.

  
Dr. Rupinder Singh  
Course Coordinator

  
Dr. J.S. Grewal  
Faculty Coordinator

  
Dr. M.S. Saini  
Director



## **GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956

### **Department of Production Engineering**

#### **Consolidated report on Faculty Development Program on 'Optimization, Life Enhancement of Bio-Medical Implants by Additive Manufacturing and Protective Coatings'.**

The faculty development program sponsored by QIP on 'Optimization, Life Enhancement of Bio-Medical Implants by Additive Manufacturing and Protective Coatings' was organized by the Production Engineering department from 4 – 8 September, 2017. FDP was held under the guidance of Director GNDEC, Ludhiana and HOD Production Engineering. The program was designed for industrialist, medical field representatives, researchers and faculty of Various fields of Engineering, as it was an interdisciplinary course.

The experts from the various reputed institutes were present to deliver lectures and share their experiences in Bio-Medical implants by additive manufacturing. More than 50 participants from various institutions had attended the program to take benefits of expert talks and enhanced their knowledge in the field of Bio-Medical implants by additive manufacturing and their life enhancement.

#### **Objectives of the program:**

1. Application of optimization techniques for life enhancement of biomedical implants.
2. Hand on experience for preparation of bio medical implants by additive manufacturing.
3. Lab testing of protective coatings as per ASTM standards.

#### **Sessions of the program:**

Session I: 09:15 am – 10:45 am

Tea break (10:45 am – 11:00 am)

Session II: 11:00 am – 12:30 pm

Lunch break (12:30 pm – 01:15 pm)

Session III: 01:15 pm - 02:45 pm

Tea break (02:45 pm – 03:00 pm)

Session IV: 03:00 pm – 04:30 pm

**Course contents:**

- Role of optimization for biomedical implants.
- Additive manufacturing for biomedical implants.
- Biomedical/protective coatings.
- Design of experiment (various tools for process optimization)
- Case studies on dental/ortho 4D materials.
- Practice session for lab testing as per ASTM standards.

**Speakers:**

Dr. Buta Singh (MRS Punjab Techninal University, Bathinda)

Dr. Satya Prakash (IIT Roorkee)

Dr. Bhupinder Singh Bhoop (PU, Chandigarh)

Dr. IPS Ahuja (Punjabi University, Patiala)

Dr. JS Dureja (Punjabi University, Patiala)

Dr. Sanjeev Kumar (PEC, Chandigarh)

Dr. Sandeep Grover (YMCA, Faridabad)

Dr. Rupinder Singh (GNDEC, Ludhiana)

Dr. GS Brar (GNDEC, Ludhiana)

**Organizing Committee:**

Dr. MS Saini (Chief Patron)

Dr. JS Grewal (Patron)

Dr. Rupinder Singh (Course Coordinator)

Er. Manjot Singh Bedi

Dr. Harpuneet Singh

Er. Jagdeep Singh

Er. Gauravdeep Singh

Er. Paramjit Singh

Er. Kanwalpreet Sahni

Er. Arshpreet Kaur

Er. Gulraj Singh

  
HOD PE



## **ELIGIBILITY**

The FDP is interdisciplinary and is open to all faculty members from CSE, IT, EE, ECE, ME, Production departments and computer science applications. Research Scholars /M.Tech students and industry personnel working in the concerned areas are also eligible.

## **HOW TO APPLY**

Applicants can fill the registration form only in **online mode** available at [http://it.gndec.ac.in/fdp\\_ro](http://it.gndec.ac.in/fdp_ro).

After successful registration, pdf form will be generated and applicants are required to download the form and send the form duly signed from sponsoring organization to [it@gndec.ac.in](mailto:it@gndec.ac.in) before deadline along with scanned copy of Demand Draft/Cheque.

**Last date for receipt of Application:** 06.10.2017  
**Date of Intimation regarding final Selection:** 13.10.2017

Brochure can also be downloaded from our website: [http://it.gndec.ac.in/fdp\\_ro](http://it.gndec.ac.in/fdp_ro)

### **ADDRESS FOR CORRESPONDENCE**

Dr. Amit Kamra (Asstt. Prof.)  
Co-Coordinator

Contact: - 98142-29753

Department of Information Technology  
Guru Nanak Dev Engineering College  
(An Autonomous College u/s 2(f) and 12(B) of  
UGC Act, 1956)

Gill Road, Gill Park, Ludhiana-141006, Punjab.  
Email: - [it@gndec.ac.in](mailto:it@gndec.ac.in)

## **REGISTRATION**

There is no registration fee for the FDP but an amount of Rs 1000 (Refundable) in form of Cheque/DD in favour of Director GNDEC is required. The above amount will be refunded to the participant if he/she attends the FDP. In case a participant does not attend the FDP, the above amount will be forfeited. All shortlisted candidates are required to confirm their participation by submitting duly signed registration form generated online to [it@gndec.ac.in](mailto:it@gndec.ac.in)

## **TRANSPORT, BOARDING & LODGING**

All outstation Participants are entitled for 2<sup>nd</sup> class AC railway fare to and fro by the shortest route from their college to GNDEC, Ludhiana. Limited accommodation will be provided in the students Hostels or Guest House on sharing basis (subject to availability).

### **CHIEF PATRON**

**Dr. M.S. Saini**

(Director, GNDEC)

### **COORDINATORS**

**Dr. K.S. Mann**

*Coordinator*  
(Professor & HOD- I.T.)

**Dr. Amit Kamra**

*Co-Coordinator*  
(Asstt. Prof.- I.T.)

## **AICTE Sponsored**

### **Two Weeks Faculty Development**



### **Programme**

**On**

## **Research Opportunities in Medical Imaging, Biomedical Engineering and Health Informatics**

**OCT 23, 2017-NOV 3, 2017**



**Department of Information  
Technology  
Guru Nanak Dev Engineering College  
Ludhiana, Punjab-141006**  
email: [it@gndec.ac.in](mailto:it@gndec.ac.in)  
Contact: -98142-29753

## **ABOUT THE INSTITUTE**

Guru Nanak Dev Engineering College (GNDEC), Ludhiana is one of the oldest and a premier Engineering Institute of India straining persistently in the field of education by comprehending the need for up-liftment of rural youth in highly competitive, technologically elevated society and understanding the thirst for knowledge of students and quenching it in general. The foundation stone of the college was laid by Honorable Dr. Rajendra Prasad Ji, President of India on 8<sup>th</sup> April, 1956. The institution runs seven B.Tech., thirteen M.Tech., MBA and MCA FDPs, besides being a QIP centre for Ph.D.

The College is affiliated with I.K. Gujral Punjab Technical University (IKGPTU). The College FDPs are approved by All India Council for Technical Education, New Delhi.

This is the first Engineering College of Punjab, which was conferred Autonomous Status by University Grants Commission(UGC), New Delhi in 2012 under section 2(f) and 12(B) of UGC Act 1956. Institution is accredited by National Assessment and Accreditation Council (NAAC) (A Grade) and TCS. The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla highway in Punjab.

## **ABOUT THE DEPARTMENT**

The department of Information Technology in Guru Nanak Dev Engineering College, Ludhiana was established in 2001. The mission of the Department of Information Technology is to impart high quality post graduate and under-graduate education and carry out leading-edge research in the discipline of Information Technology. The department currently runs academic program leading to the award of B.Tech. in Information Technology degree of I.K.G Punjab Technical University Jalandhar. The B.Tech (IT) program of department has been accredited twice by the by NBA.

## **ABOUT FDP**

By nature, field of Medical Imaging, Biomedical Engineering and Health Informatics is an interdisciplinary endeavor. A faculty development program on **Research opportunities in Medical Imaging, Biomedical Engineering and Health Informatics** is aimed at introducing the possible research avenues in the field of Biomedical Engineering and will be an opportunity for the participants who are interested in interdisciplinary areas where they can apply their expertise to solve problems in medicine and health care.

## **OBJECTIVE OF THE FDP**

- Gain Insights into the emerging trends and researches in field of Medical Imaging
- Hands on experience of data analytical tools imperative in field of bioinformatics and medical imaging
- Research trends in healthcare and medical industry

## **FDP CONTENTS**

The contents of FDP will address all the current and upcoming issues related to areas of medical imaging, biomedical engineering and health informatics. In addition Hands on training for tools like MATLAB, WEKA, and OCTAVE will also be provided to the participants.

## **RESOURCE PERSON**

Eminent Speakers from IIT/NIT/UIET/GNDEC and doctors from reputed Hospitals will be handling the sessions.

## **AICTE Sponsored**

### **Two Weeks Faculty Development Programme on**

### ***Research Opportunities in Medical Imaging, Biomedical Engineering and Health Informatics***

Name (in block letters): \_\_\_\_\_

\_\_\_\_\_

Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Cheque/DD No: \_\_\_\_\_

Organization: \_\_\_\_\_

\_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

Age: \_\_\_\_\_ Gender (M/F): \_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Educational Qualifications: \_\_\_\_\_

*Accommodation Required: Yes/ No*

Signature of Applicant:

Sponsorship & signature of Head of the College/  
Institute (with date & seal)  
**Form should be complete otherwise  
application will be rejected.**

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION  
Nelson Mandela Marg, Vasant Kunj, New Delhi - 110 067

F.No. 6-85/RIFD/FDP/Policy-1/2016-17

Dated: 6<sup>th</sup> June 2017

To

The Drawing and Disbursing Officer,  
All India Council for Technical Education,  
Nelson Mandela Marg,  
Vasant Kunj,  
New Delhi - 110067,

Sub: Release of a sum of Rs. 621000/- being the 1<sup>st</sup> Installment of the total Grant of Rs. 690000/- for conduct of Faculty Development Programme (FDP) during the financial year 2017-18 - reg.

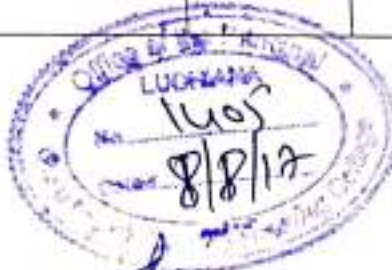
Sir,

This is to convey the sanction of the Council for payment of Rs. 621000/- (Rupees Six Lakh TwentyOne Thousand Only) as 1<sup>st</sup> installment out of the total approved grant-in-aid of Rs. 690000/- for conduct of FDP on Research opportunities in Medical Imaging, Biomedical Engineering and Health Informatics to GURU NANAK DEV ENGINEERING COLLEGE, GILL PARK, GILL ROAD, LUDHIANA Pin No - 141006 Punjab, under the Scheme of Faculty Development Programme.

1. The amount of the grant shall be drawn by the Drawing and Disbursing Officer, All India Council for Technical Education on the grant-in-aid bill and shall be disbursed to and credited to the Registrar/Director/Principal of the institute through RTGS.
2. This grant-in-aid is being released in conformity with the terms & conditions as well as norms of the Scheme as already communicated, and also being communicated in this letter.
3. The sanctioned amount is debit to the Major Head 601.9(a) Gen. of the Scheme of Faculty Development Programme and is valid for payment during the financial year 2017-18.
4. Funds covered by this grant shall be kept separately and would not be mixed up with other funds.
5. The Council or its nominee shall have the right to check/verify the accounts to satisfy that the funds have been utilized for the purpose for which they were sanctioned.
6. The Principal and the Coordinator of the institute are requested to verify the correctness of the under mentioned bank account/ RTGS details submitted by them along with the Proposal, in which the grant is being released. In case of any omission the same should be reported to AICTE immediately along with refund of entire grant: -

Institute PAN No.	Bank Name	Bank Branch Name	Bank Branch Address	Account Holder Name	Account Type	Account Number	IFSC Code
AAATN1978L	PUNJAB AND SIND BANK	Gill	Gill, Ludhiana	Director	Saving Account	211000050614	PSIB0000021

Contd.....2



1. PA  
2. Concerned  
3. Supdt. AIC

Seen  
Dandee



::2::

7. The University/College/Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilized only on approved items of expenditure.
8. Interest on the sanctioned grant will be reported back to AICTE and may be adjusted against the subsequent installment.
9. 90% of sanctioned amount to Govt. Institutions and 50% of sanctioned amount as advance to Self-Financing Institutions shall be released on the basis of Approval Letter for 2016-17. Those Institutes/Colleges, who have already conducted the event after submitting the application in the financial year, shall not be paid any advance payment. They may send the expenditure account and other relevant documents within one month of receipt of this letter for final settlement and reimbursement.
10. The grant is intended to cover items of expenditure connected with the Faculty Development Programme such as Boarding & Lodging to the participants, TA to outstation participants, Honorarium to Course Coordinator, Reading material to participants, Honorarium to Resource Persons, TA/DA to resource persons including two outstations resource persons & Working Expenses (reprographic services, postage, transport, daily wages, tea/coffee etc).
11. The Council shall sanction a maximum grant of Rupees Seven Lakh only to conduct one Programme. The expenditure under the Heads 'Honorarium to Course Coordinator' and 'Honorarium to Resource Persons' shall not exceed 1% & 20% respectively of the total sanctioned grant for the Programme. However, overall expenditure shall not exceed the funds sanctioned for the Programme.  
Type of trainings under FDP shall be as under:
  - I. Pedagogical Training
  - II. Subject related Training
  - III. Training related to Moral Values, Ethics, Behavioural Sciences & Attitude etc.
  - IV. Training on Leadership & Faculty Development under U.K. India Education Research initiative (UKIERI)
12. The balance amount will be reimbursed to the institutions only on submission of duly audited utilization certificate and other relevant documents.
13. The reimbursement of the balance entitled amount of the grant-in-aid shall be released only on receipt of the following documents: -
  - (i) Feedback form in the prescribed proforma.
  - (ii) Original Statement of actual expenditure & Utilization Certificate in the prescribed proforma duly signed by the Head of the institution and countersigned by Registrar/Finance Officer/Govt. Auditor. In case of self-financing/private institutions, Statement of actual Expenditure along with paid vouchers & Utilization Certificate are required to be audited & signed and sealed by a Chartered Accountant endorsing the membership number and complete postal address. **Photocopies of formats are enclosed.**
  - (iii) Copy of the proceedings and completion report.
  - (iv) **If programme is not conducted in the period of six months of the issuance of this Offer Letter, the released amount, along with interest accrued thereon, has to be returned to AICTE.**
14. The documents mentioned above must be sent within one month of the completion of the Faculty Development Programme held with approved financial assistance. On receipt of these documents, the total amount of financial assistance admissible as per the norms shall be worked out and grant-in-aid shall be released in favour of the beneficiary institution.
15. Any unavoidable circumstantial change in the Programme with respect to name of Project Coordinator, Venue and date for organizing FDP would mandatorily require prior approval of the Council. All such requests should be addressed to AICTE, in advance, recording the specific reasons for proposed changes, failing which the offer for the grant already issued would be treated as automatically withdrawn and the financial assistance released in favour of the beneficiary institution shall be

June 2017  
refunded immediately to the Council. Kindly mention the File No. 6-85/RIFD/FDP/Policy-1/2016-17 in your future correspondence.

16. The FDP will be organized for 2 weeks with minimum 50 participants and the institute should strictly observe all the terms and conditions contained in the scheme details under AICTE AQIS 2016-17.
17. The grant is subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma submitted by the University/College/Institution. Further, the accounts of the institute will be open for test check by the Council or Controller & Auditor General of India or any other officer designated by them.
18. The University/College/Institute shall maintain proper accounts of the expenditure out of the grants which shall be utilized only on the approved items of expenditure.
19. This Sanction Order may be treated as Offer Letter for all purposes.

Yours sincerely,

  
(Dileep N Malkhede)  
Advisor-I (RIFD) 7/7/17

Copy forwarded for information and necessary action to:-

1. **Dr. KULWINDER MANN,**  
Department of INFORMATION TECHNOLOGY  
GURU NANAK DEV ENGINEERING COLLEGE  
GILL PARK, GILL ROAD, LUDHIANA  
Pin No. 141006  
Punjab
2. **THE REGISTRAR / DIRECTOR / PRINCIPAL**  
GURU NANAK DEV ENGINEERING COLLEGE  
GILL PARK, GILL ROAD, LUDHIANA  
Pin no. 141006  
Punjab
3. Guard File

Welcome to AICTE Sponsored FDP  
on  
Research Opportunities in Medical  
Imaging, Biomedical Engineering  
and Health Informatics  
From 23<sup>rd</sup> Oct. - 3<sup>rd</sup> Nov. 2017  
Organized by  
Department of Information  
Technology

GURU NANAK DEV ENGINEERING COLLEGE  
LUDHIANA  
**Welcomes You**  
To  
**AICTE SPONSORED FDP**  
ON  
Research Opportunities in Medical Imaging,  
Biomedical Engineering and Health Informatics  
From 23<sup>rd</sup> October to 3<sup>rd</sup> November, 2017  
Organized by  
Department of Information Technology





Date 2/11/2017

S.No	Name	Session 1	Session 2	Session 3	Session 4
1	Apar Shriv Sharma				
2	Amit Kumar				
3	Arvind Dhillon				
4	Ashima	Ashima	Ashima	Ashima	Ashima
5	Baljeet Kaur	Baljeet	Baljeet	Baljeet	Baljeet
6	Balaender Singh Dholiwal				
7	Bharti Koul				
8	Baljeet Singh				
9	Chenu Chander Pant				
10	Dinesh Arand				
11	Divyadeep Kaur	Divyadeep K	Divyadeep K	Divyadeep K	Divyadeep K
12	Gagandeep	Gagandeep K	Gagandeep K	Gagandeep K	Gagandeep K
13	Gayatri	Gayatri	Gayatri	Gayatri	Gayatri
14	Gurpreet Kaur Wafar				
15	Gurpreet Kaur	Gurpreet	Gurpreet	Gurpreet	Gurpreet
16	Gursharan Singh	Gursharan Singh	Gursharan Singh	Gursharan Singh	Gursharan Singh
17	Hardeep Kaur	Hardeep	Hardeep	Hardeep	Hardeep
18	Hardeep Singh Kang	Hardeep	Hardeep	Hardeep	Hardeep
19	Harjot Kaur	Harjot	Harjot	Harjot	Harjot
20	Harmanjot Kaur	Harmanjot Kaur	Harmanjot Kaur	Harmanjot Kaur	Harmanjot Kaur
21	Harpreet Kaur Grewal	—	—	—	—
22	Inderjeet Singh				
23	Inderjit Singh Dhanoli				
24	Jagdeep Singh				
25	Jasbir Singh Saini				
26	Jasmeet Kaur	Jasmeet	Jasmeet	Jasmeet	Jasmeet
27	Kamal Nain Sharma	Kamal	Kamal	Kamal	Kamal
28	Kamaldeep Kaur	Kamaldeep	Kamaldeep	Kamaldeep	Kamaldeep

	Karanjit Singh	Kelasa Singh	Kalender Singh	Kalender Singh
29	Karanjit Singh	Kelasa Singh	Kalender Singh	Kalender Singh
30	Kiran Jyoti			
31	Ks Mann			
32	Lovepreet Kaur			
33	Mandeep Kaur			
34	Manjot Kaur Gill			
35	Manpreet Singh			
36	Mehek	Mehek	Mehek	Mehek
37	Mohanjit Kaur	Mohanjit Kaur	Mohanjit Kaur	Mohanjit Kaur
38	Munish Rattan	Munish Rattan	Munish Rattan	Munish Rattan
39	Nazma Makkar	Nazma Makkar	Nazma Makkar	Nazma Makkar
40	Nancy	Nancy	Nancy	Nancy
41	Narwant Singh Grewal			
42	Pankaj Bhamiri			
43	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur
44	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur
45	Pradeep Jiswal			
46	Priyanka Arora			
47	Puneet Kaur	Puneet Kaur	Puneet Kaur	Puneet Kaur
48	Purnima Bakshi	Purnima Bakshi	Purnima Bakshi	Purnima Bakshi
49	Randhir Singh	Randhir Singh	Randhir Singh	Randhir Singh
50	Ranjodh Kaur			
51	Ruchi Bansal	Ruchi Bansal	Ruchi Bansal	Ruchi Bansal
52	Rupinder Kaur	Rupinder Kaur	Rupinder Kaur	Rupinder Kaur
53	Sachin Bagga			
54	Sandeep Kumar Singla			
55	Sidharath Jain			
56	Simranjit Kaur			
57	Sumeet Kaur Seehra			
58	Tarandeep Singh			
59	Jagraj Singh Gill			

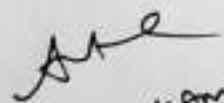


**Event Report of 2 week FDP "Research Opportunities in Medical Imaging, Biomedical Engineering and Health Informatics" held from 23/10/2017 -03/11/2017 conducted by IT Department**

Information Technology department conducted FDP on to give a brief about this course that started on 23<sup>rd</sup> Oct 2017 where Dr Sukhwinder Singh of UIET was the chief guest. The keynote address of Dr Sukhwinder Singh was based on insights of medical imaging, biomedical engineering and health informatics. An MOU with Conjoint Health care solutions was signed on FDP for providing research assistance to the M.Tech and PhD Scholars of GNDEC. Dr A S Arora from SLIET Longowal presented his views on his recent research happening in the field of biomedical engineering. Dr. Amit Kamra from GNDEC talk was on Designing Biometric authentication techniques using MATLAB. To cater the issue of plagiarism, Dr Akshay Girdhar presented a very detailed presentation on how to avoid plagiarism.

The talk of Dr. Vipul Sharma from IKGPTU was very informative as he presented how to write a world class paper. He also explained use of Mendely, how to access various database. Dr. K S Mann gave his ideas on health informatics and how to use HL7 in research purpose. Dr Ajay and Dr Manpreet Singh presented their views on recent trends on Bioinformatics. Dr Mandeep Singh from Thapar University presented his views on Liver Characterization. The participants were provided hands on session to two tools i.e WEKA and MATLAB. I hope the participants must have gained some practical knowledge from that session. A one day visit was organized to Mayo Diagnostic and Orison Hospital where Dr Sunil Mittal and his team gave live demonstration of Working of X ray Images, CT

Scan, MRI and Mammography. The FDP is designed to bring Researchers, Academia and Technocrats from different parts of the country to a common gathering for exchanging and sharing the recent developments in the field of Medical imaging, biomedical engineering and health informatics. As the course is of interdisciplinary nature, Dr Rupinder singh of Production department will be presenting a talk on biomedical implants. To inculcate research ideas among young scholars, we have managed to arrange one lecture from Mr Mandeep singh Kwatra who is visiting India from England. Dr Arvind Dhingra gave a talk on MATLAB and its applications. Dr Parminder Singh, share his research ideas on Language processing as machine learning and data mining are two pillars of any research problem. Case studies and practical examples enrich their concept in the field of Medical imaging, Biomedical Engineering, Image Processing, Data mining and it will help them to do better teaching and to conduct research activities at their institutes. HOD presented vote of thanks at valedictory ceremony.

  
(Dr. AMIT KAMRA)




Ref. No. EE/759

Dated 27/10/17

**CERTIFICATE OF APPRECIATION**

This is to appreciate & applaud the efforts of **Er. Gaurav Ahluwalia**,  
our alumnus for delivering an expert talk on "ENTERPRENEURSHIP &  
FINANCESS FOR SMALL SCALE INDUSTRY" to students of 3<sup>rd</sup> year  
Electrical Engineering on 27<sup>th</sup> October, 2017. We wish him all the best.

  
HOD (EE) 27/10/17

*Expert lecture*

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA.

ELECTRICAL ENGINEERING DEPARTMENT

Ref. No. EE/ 750

Dated: 26.10.2017

NOTICE

There will be seminar on topic. "ENTREPRENEURSHIP and STARTUPS" by Er. Gaurav Ahluwalia (Alumni and an entrepreneur on 27.10.2017 at 10.00 AM in Deptt. Computational Lab. All final year students are required to attend the same.

*[Signature]*  
HOD 26/10/17

Elect. Engg. Deptt.

*as*  
(G.S.SODHI)

I. D. N. B.

**Name of expert lecture - Entrepreneurship & Finances for Small Scale Industry**





## Name of expert lecture - Entrepreneurship & Start-ups





# Science & Technology Entrepreneurs' Park (Guru Nanak Dev Engineering College)

Ludhiana-141006

Attendance Sheet

Rakesh Kataria

2 day

S. No	Name of Student	Fathers Name	1st day		2nd Day		3rd day	
			M	M (2nd)	E	E	M	M (3rd)
✓ 1	Mohit Kaur	Dharmat Rai Kaur	Mohit	Mohit	Mohit		Mohit	Mohit
x 2	Lisha	Varinder Kumar	Lisha	Lisha	Lisha		Lisha	Lisha
✓ 3	Jaspreet Kaur	Aminder Singh	Jaspreet	Jaspreet	Jaspreet		Jaspreet	Jaspreet
✓ 4	Gurish Puri	Sunil Puri	Gurish	Gurish	Gurish		Gurish	Gurish
✓ 5	Avinash Kumar	Ramjee Singh	Avinash	Avinash	Avinash		Avinash	Avinash
✓ 6	Gurpreet Singh	Sukhwinder Singh	Gurpreet	Gurpreet	Gurpreet		Gurpreet	Gurpreet
x 7	Shubham Goyal	Anu Goyal	Shubham	Shubham	Shubham		Shubham	Shubham
✓ 8	Sunaina Jain	Harinder Singh Jain	Sunaina	Sunaina	Sunaina		Sunaina	Sunaina
✓ 9	Rishab Arora	Rajinder Kumar	Rishab	Rishab	Rishab		Rishab	Rishab
x 10	Sanchi	Sanjay Kaur	Sanchi	Sanchi	Sanchi		Sanchi	Sanchi
✓ 11	Ravinderdeep Kaur	Kuldeep Singh	Ravinder	Ravinder	Ravinder		Ravinder	Ravinder
✓ 12	Rohit Kaur	Binderaprasad	Rohit	Rohit	Rohit		Rohit	Rohit
✓ 13	Santosh Kumar	MADAN LAL ARYA	Santosh	Santosh	Santosh		Santosh	Santosh
✓ 14	Mandeep Singh	Jasbir Singh	Mandeep	Mandeep	Mandeep		Mandeep	Mandeep
✓ 15	Neeraj Kumar	Sanjay Kumar	Neeraj	Neeraj	Neeraj		Neeraj	Neeraj
✓ 16	PRINCE K.R.	MANOJ K.R.	Prince	Prince	Prince		Prince	Prince
✓ 17	SHASHI BHUSHAN	MANOJ KOMAR	Shashi	Shashi	Shashi		Shashi	Shashi
x 18	Tufail Farooq	Farooq Ahmed	Tufail	Tufail	Tufail		Tufail	Tufail
x 19	Jaspreet Singh	Manvinder Singh	Jaspreet	Jaspreet	Jaspreet		Jaspreet	Jaspreet
✓ 20	Manjinder Kaur	Gurpreet Singh	Manjinder	Manjinder	Manjinder		Manjinder	Manjinder
x 21	Ravi Sharma	R.K. Sharma	Ravi	Ravi	Ravi		Ravi	Ravi
✓ 22	Latika Kaur	Harjit Singh	Latika	Latika	Latika		Latika	Latika
x 23	Harleen Kaur	S. Harjit Singh	Harleen	Harleen	Harleen		Harleen	Harleen
✓ 24	Shivani Rana	Mr. Jatinder Singh Rana	Shivani	Shivani	Shivani		Shivani	Shivani
x 25	Rohit Bhandari	Es. Jatinder Bhandari	Rohit	Rohit	Rohit		Rohit	Rohit
✓ 26	Prabhakar Kaur	S. Jasbir Singh	Prabhakar	Prabhakar	Prabhakar		Prabhakar	Prabhakar
✓ 27	Lovpreet Kaur	Lakshant Singh	Lovpreet	Lovpreet	Lovpreet		Lovpreet	Lovpreet
✓ 28	Simranjit	Daljit Singh	Simran	Simran	Simran		Simran	Simran
✓ 29	Ram Kumar	Vijay Mahra	Ram	Ram	Ram		Ram	Ram
x 30	Tarandeep Kaur	Kamjit Singh	Tarandeep	Tarandeep	Tarandeep		Tarandeep	Tarandeep
x 31	Sukdeep Kaur	Bachittar Singh	Sukdeep	Sukdeep	Sukdeep		Sukdeep	Sukdeep







## **Name of Expert Lecture- Entrepreneurship & Start-ups**

### **LIST OF PARTICIPANTS (GNDEC-ECE) EAC - VIII (2017-18)**

Sr.No.	Name of Participants	Age	Male/Female	Education	Category (Gen/SC/ ST/OBC/ Minority)	Adhaar Number
1	2	3	4	5	6	7
1	Sudhanshu Nath Mishra	21	Male	Btech(ECE)	General	
2	Rohit Sarpal	23	Male	Btech(ECE)	General	577285841580
3	Rahul Bhandari	22	Male	Btech(ECE)	General	
4	Simranpal	22	Female	Btech(ECE)	SC	405342305199
5	Vikas Singh	22	Male	Btech(ECE)	General	
6	Neeraj Kumar	20	Male	Btech(ECE)	OBC	897142023695
7	Sahil Baba Tiwari	20	Male	Btech(ECE)	General	308308750605
8	Shahdat Akram Chowdhury	23	Male	Btech(ECE)	General	394771192488
9	Jagroop Singh	21	Male	Btech(ECE)	SC	439126700677
10	Robin Sharma	21	Male	Btech(ECE)	General	
11	Baljinder Singh	22	Male	Btech(ECE)	General	675318148158
12	Chanpreet Singh	20	Male	Btech(ECE)	General	
13	Ravneet Singh Ubhi	21	Male	Btech(ECE)	General	674081424255
14	Gurdeep Singh	20	Male	Btech(ECE)	General	
15	Prabhuleen Kaur	20	Female	Btech(ECE)	General	916078255277
16	Rohit Kumar	21	Male	Btech(ECE)	OBC	
17	Tufail	25	Male	Mtech	General	
18	Sanjay Kumar	21	Male	Btech(ECE)	ST	434442987548
19	Avinash Kumar	19	Male	Btech(ECE)	General	398361600135
20	Jaspreet Kaur	20	Female	Btech(ECE)	General	233262650749
21	Gurjung Singh	21	Male	Btech(ECE)	General	
22	Sunaina Saini	22	Female	Btech(ECE)	General	265186691593
23	Mandeep Singh	20	Male	Btech(ECE)	General	807406560240
24	Swapnil Verma	21	Female	Btech(ECE)	General	
25	Chetan jot Kaur	23	Female	Mtech	General	
26	Shashi Bhushan	21	Male	Btech(ECE)	OBC	488258992966
27	Shubham Goyal	20	Male	Btech(ECE)	General	
28	Sanchi	21	Female	Btech(ECE)	General	
29	Jasdeep Singh	25	Male	Mtech	General	
30	Ravinderdeep Kaur	20	Female	Btech(ECE)	SC	376024437080
31	Rohit Verma	21	Male	Btech(ECE)	SC	209301109658
32	Rishab Arora	22	Male	Btech(ECE)	General	748761986408
33	Latika Kalra	22	Female	Btech(ECE)	General	571399498078
34	Manjinder Kaur	23	Female	Btech(ECE)	SC	983049577143
35	Kanchan	22	Female	Btech(ECE)	SC	
36	Shubham Sharma	21	Male	Btech(ECE)	General	
37	Girish Puri	21	Male	Btech(ECE)	General	575880426846
Sr.No.	Name of Participants	Age	Male/Female	Education	Category (Gen/SC/ST/O BC/ Minority)	Adhaar Number

[illegible]

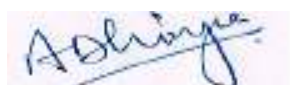
**EVENT REPORT- “Entrepreneurship & Finances for Small Scale Industries”,**  
**ELECTRICAL ENGINEERING DEPARTMENT, DATED: 27/10/17**

The purpose of the talk delivered on the topic “Entrepreneurship & Finances for small scale industries”, delivered by Er. Gaurav Ahluwalia, alumnus, GNDEC, was to provide an overview of the important issues and questions in entrepreneurial finance, and to partially understand how to survey the nascent literature on this topic. Historically, finance scholars have tended to view entrepreneurship as entirely separate from the field of corporate finance. Implicit in this approach is the idea that the issues in entrepreneurial finance are sufficiently different from those faced by public corporations so as to limit the applicability of traditional finance theory. More recently, however, financial economists have recognized that entrepreneurial situations are characterized by the same two fundamental problems that form the basis for much of corporate finance theory: agency problems and information asymmetries.

Entrepreneurial finance differs from traditional corporate finance only in the sense that the magnitude of these two problems is larger, thereby requiring contractual solutions that differ from those typically encountered in larger, more established corporations.

This main purpose of the seminar was to provide an overview of four areas of inquiry within the entrepreneurial finance literature: (i) alternative sources of capital, (ii) financial contracting issues, (iii) public policy issues, and (iv) risk and return in private equity investments. These four areas are not meant to be an exhaustive set of issues but, rather, represent the primary areas

Instead, Er. Ahluwalia’s more modest goal was to survey small scale industries economic conditions that represent the most important contributions and the “state-of-the-art” thinking on entrepreneurial finance issues. This approach will necessarily preclude the discussion of many high-quality economists and students.



Dr. Arvind Dhingra

Event Coordinator & Incharge

Dated: 27/10/2017



**EVENT REPORT- “Entrepreneurship & Start-ups”, ELECTRICAL ENGINEERING  
DEPARTMENT, DATED: 27/10/17**

The purpose of the talk delivered on the topic “Entrepreneurship & Startups”, delivered by Er. Gaurav Ahluwalia, alumnus, GNDEC, was to provide An emerging entrepreneurial view on the ventures with fast growing business, developing and/or subsequently offering an innovative product, process or service can be termed as a startup company. Startups are playing a very crucial role in the development of economies at a comparatively faster pace all around the world. The technological innovation along with process creativity as well as new product development has given rise to a huge number of startups coming up in the markets in recent times.

Observing the potential of this fast growing trend, the Indian Government launched a scheme named Startup India, to encourage and assist the young entrepreneurs in establishment of startups in the country and outside as well. Startups provide a catalyst ground for the technological development to build a strong system for nurturing innovation that can drive sustainable development and generate substantial employment opportunities for taking ahead the country.

As per Economic survey 2015-2016 tabled by Finance Minister, there are more than 19000 technology enabled startups in India. However, a huge number of startups either fail to run sustainably or they face investor’s exit due to one reason or the other.

Er. Ahluwalia’s tried to analyse the survey on statup conditions that represent the most important contributions and the “state-of-the-art” thinking on entrepreneurial business issues. This approach will necessarily preclude the discussion of many high-quality economists and students aspiring startups.



Dr. Arvind Dhingra

Event Coordinator & Incharge

Dated: 27/10/2017

## HOW TO APPLY

Completed Registration form along with one page write up (on reasons to attend this course) should be sent by email to qipgndecme@gmail.com. Please send single email with following attachments:-

(i) Scanned copy of the filled in and signed form, and

(ii) One page write-up

The title of the email should be “QIP course on Finite Element Method for Engineering Applications”.

The hard copy of the same should be send to following address:-

Dr. Gurinder Singh Brar

(Course Coordinator)

Er. Aprinder Singh Sandhu, Er. Chatwant Singh Pandher

(Course Co-Coordinator)

Department of Mechanical Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab. (INDIA) 141006.

## IMPORTANT DATES

Deadline for submitting Applications – 21<sup>st</sup> Nov., 2017

Notification of Acceptance – 25<sup>th</sup> Nov., 2017

## VENUE FOR COURSE

Workshop Seminar Hall, GNDEC, Ludhiana

## ELIGIBILITY

Industry Persons, Research Scholars and Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course.

## REGISTRATION

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a cheque/Demand draft of Rs. 1000/- in the name of “Principal, GNDEC, Ludhiana”.

The above amount will be refunded to the participant if he/she attends the course. In case a participant does not attend the course, the above amount will be forfeited. Shortlisting and confirmation of eligible candidates will be on a first come first served basis up to a maximum of 30 candidates.

## TRAVEL AND ACCOMMODATION

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from the college to GNDEC, Ludhiana. Accommodation will be provided in Guest House or Student Hostels on sharing basis.

## FACULTY COORDINATOR

Dr. Sehijpal Singh Khangura

## COURSE COORDINATOR

Dr. Gurinder Singh Brar

## COURSE CO-COORDINATOR

Er. Aprinder Singh Sandhu, Er. Chatwant Singh Pandher

## ORGANIZING COMMITTEE

Faculty of Mechanical Engineering

## GUEST FACULTY

Dr. Inderdeep Singh (IIT, Roorkee), Dr. J. S. Saini (TU, Patiala), Dr. Indra Vir Singh (IIT, Roorkee)

## QIP SHORT TERM COURSE

ON

## FINITE ELEMENT METHOD FOR ENGINEERING APPLICATIONS

(4<sup>th</sup> – 8<sup>th</sup> December, 2017)



Department of Mechanical Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana – 141006

Punjab, INDIA

Mobile - +91-9781991160,

+91-9914701236,

+91-9478230013.

Email – qipgndecme@gmail.com

www.gndec.ac.in

## ABOUT THE INSTITUTE

Guru Nanak Dev Engineering College, Ludhiana (established in 1956), is one of the oldest and a premier Engineering Institute of India. The foundation stone of the college was laid by Honorable Dr. Rajendra Prasad Ji, President of India on 8<sup>th</sup> April, 1956. GNDEC is now an autonomous college under UGC act. The ISO-9001:2000 certified institution has seven B.Tech. courses, thirteen AICTE approved post-graduate courses besides being a QIP centre for PhD.

The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla state highway and is 7km from the railway station, 6km from Main Bus Stand and 15km from the Airport. Ludhiana is well connected by roads and is located at 300 km from New Delhi, 90 km from Chandigarh, 150 km from Amritsar.

## ABOUT THE DEPARTMENT

Mechanical Engineering Department was established in 1957 and is currently offering B.Tech. (Mech. Engg.), M.Tech. (Prod. Engg.), M.Tech. (Ind. Engg.) and PhD courses. Since its inception, the department has contributed in a big way to the society by providing technical manpower for various fields in India and abroad. Around 3000 graduates and 300 post graduates from the department are settled in very good positions all over the Globe. The faculty of the department continues to provide new frontiers of technical knowledge to the students by imparting quality education and

research. Presently, Dr. Sehijpal Singh Khangura is Head of Department.

## COURSE CONTENTS

1. Basics and Fundamentals
2. Approaches to solve FE problems
3. FEM for beams, plates and axisymmetric problems
4. FEM for solid mechanics and fluid flow problems
5. Demonstration of FE software
6. Case Studies

## OBJECTIVES OF THE COURSE

Finite element analysis has become an integral part of design for automotive, aerospace, civil construction, consumer and industrial goods industry. The objectives of this course are:

- (a) To develop the fundamental understanding of the principle of finite element method.
- (b) To introduce finite element method (FEM) to participants so that they are equipped to solve various problems of their field.
- (c) To familiarize the participants to FE software to carry out various types of FE analysis.
- (d) To apply FEM to solve problems in different engineering disciplines namely stress analysis, fluid flow, heat transfer etc.

## RELATED DISCIPLINES

Mechanical, Production and Civil Engineering.

## Guru Nanak Dev Engineering College, Ludhiana, Punjab-141006

QIP Short Term Course  
on

## FINITE ELEMENT METHOD FOR ENGINEERING APPLICATIONS (4<sup>th</sup> - 8<sup>th</sup> December, 2017)

## APPLICATION FORM

1. Name: .....
2. Educational Qualification:.....
3. Designation:.....
4. Institute:.....
5. Address for Correspondence:.....  
.....  
.....  
Phone:.....  
E-mail:.....
6. Experience:.....
7. Accommodation Required: YES/NO

Date:                      Signature of the Applicant

Signature of Head of the College/Institute (with date & seal)

(Important: By signing above head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)

\*Form should be complete otherwise the application will be rejected









**GURU NANAK DEV ENGINEERING COLLEGE,****LUDHIANA (141006), PUNJAB, INDIA****An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956**

It is certified that Amrinder Singh Pannu of G.N.D.E.C, Ludhiana

has attended a QIP sponsored Short Term Course on "Finite Element Method for Engineering Applications" organised by Department of Mechanical Engineering, Guru Nanak Dev Engineering College, Ludhiana from 4<sup>th</sup> December 2017 to 8<sup>th</sup> December 2017.

*M.*  
Course Co-ordinator

*[Signature]*  
HOD (Mech.)

*[Signature]*  
QIP Co-ordinator



# GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA (141006), PUNJAB, INDIA

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956



It is certified that Chatwamt Singh Pandher of G.N.D.E.C, Ludhiana  
has attended a QIP sponsored Short Term Course on "Finite Element Method for Engineering Applications"  
organised by Department of Mechanical Engineering, Guru Nanak Dev Engineering College, Ludhiana  
from 4<sup>th</sup> December 2017 to 8<sup>th</sup> December 2017.

  
Course Co-ordinator

  
HOD (Mech.)

  
QIP Co-ordinator



## Attendance Sheet

### Short Term Course on Finite Element Method for Engineering Applications

04/12/2017 to 08/12/2017

Sr no	Name	Sign
1	Sukhvir Singh	Sukhvir Singh
2	Balraj Singh	Balraj Singh
3	Amrit	Amrit
4	Sukhjot Singh	Sukhjot Singh
5	Harmanjit	HS
6	Pardeep	Pardeep
7	Suhel	Suhel
8	Samriti	Samriti
9	Pankaj	Pankaj
10	Chandar	Chandar
11	Chatwant Singh	Chatwant Singh
12	Amrinder Singh Pannu	Amrinder Singh Pannu
13	Dalvir Singh	Dalvir Singh
14	Hardeep Singh	H.Singh
15	Sukhmanjit Kaur	Sukhmanjit Kaur
16	Sardar Singh	Sardar Singh
17	Komaljit Kaur	Komaljit Kaur
18	Akriti	Akriti
19	Suneha	Suneha
20	Supanjit Kaur	SK
21	Pritpal Singh	Pritpal Singh
22	Lakhveer Singh	Lakhveer Singh

23	Kuldeep Singh	Kuldeep
24	Ram	Ram
25	Harinder Singh	H. Singh
26	Pardeep Kaushal	Pardeep K.
27	Gurdeep Singh	Gurdeep Singh
28	Preetkamal	Preetkamal
29	Lakhvir Singh	Lakhvir Singh
30	Gurjant Singh	Gurjant
31	Heena	Heena
32	Kamaldeep	Kamaldeep
33	Sheetal	Sheetal
34	Kuldeep	Kuldeep
35	Pardeep Kumar	P. Kumar
36	Suneha Sharma	Suneha
37	Hardeep Dhawan	Hardeep Dhawan
38	Kuldeep	Kuldeep
39	Jasvir Singh	J. Singh
40	Jaskaran Singh	Jaskaran Singh
41	Gurjit	Gurjit
42	Hardeep Kumar	Hardeep Kumar
43	Baljit Singh	Baljit Singh
44	Harmanjot	Harmanjot
45	Suman	Suman
46	Komaldeep sran	Komaldeep
47	Harjinder	H. Singh
48	Kulpreet	Kulpreet
49	Harjap Singh	Harjap Singh
50	Barjinder Kumar	Barjinder
51	Harkik Singh	Harkik



52	Jeevanjot	Jeevanjot
53	Sumandeep	Sumandeep
54	Kulvir	K.S.
55	Jasjot Singh	Jasjot Singh

**Guru Nanak Dev Engineering College, Ludhiana**  
An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956  
**Department of Mechanical Engineering**

**Activity report**

**STC on Finite Element Method for Engineering Applications**

The short time course was organized by the mechanical engineering department from December 4<sup>th</sup> to 8<sup>th</sup> December, 2017 on topic **Finite Element Method for Engineering Applications**. The programme was designed especially for the Faculty Members, Research Scholars, and students. It includes numerical calculation method used in many fields of engineering and research and allows efficient and precise modelling the behavior of mechanical, thermal, or other complex systems. This method separates a complex geometry into a network of nodes and elements of simpler shape and equations, called a mesh. 55 participants were present in this session.

Hi,

### COURSE OBJECTIVE

Low power has emerged as a principal theme in today's electronics industry. With the remarkable success and growth of the class of personal computing devices (portable desktops, audio- and video-based multimedia products) and wireless communications systems (personal digital assistants and personal communicators), demand of high-speed computation and complex functionality with low power consumption has increased. In the past, the major concerns of the VLSI designer were area, performance, cost and reliability; power consideration was mostly of only secondary importance. In recent years, however, this has begun to change and power is being given comparable weight along with area and speed considerations. Thus, the need for low power has caused a major paradigm shift where power dissipation has become as important a consideration as performance and area. Many issues are faced by designers at architectural, logic, circuit and device levels which are required to be overcome by efficient techniques. This course will address the latest trends and future challenges that must be met to design low power, high performance systems.

### COURSE CONTENTS

- ✦ VLSI Design cycle
- ✦ Challenges at various design levels
- ✦ Power Estimation Methods
- ✦ Power reduction techniques at each design level
- ✦ Effects of scaling
- ✦ CMOS Analog design
- ✦ Digital circuit design
- ✦ CAD Techniques
- ✦ Nanoscale Semiconductor Devices
- ✦ Hands-on session on tools like Cadence and TCAD.
- ✦ Future Challenges

### IMPORTANT DATES

Submission of Registration form  
by 01.12.2017

Acceptance Notification by  
02.12.2017

### DATE & VENUE FOR REGISTRATION

4.12.2017 (9AM) at YCC  
Seminar Hall, GNDEC,  
Ludhiana

### CONTACT DETAILS

Dr. Sandeep Singh Gill  
Professor & Head,  
Department of Electronics &  
Communication Engineering,  
Guru Nanak Dev Engineering College,  
Gill Road, Gill Park, Ludhiana,  
Punjab - 141006  
E-mail: gndec.eco.fdp@gmail.com  
Phone: 0161-5064576(O)

### PATRON

Principal,  
Guru Nanak Dev Engineering  
College, Ludhiana

### COORDINATOR

Dr. Sandeep Singh Gill

### ORGANISING COMMITTEE

Pr. Navwani Singh	Pr. Joonet Kaur
Dr. Balwinder Singh	Pr. Daljit Singh
Dr. Manish Rattan	Pr. Saparjit Kaur
Dr. Baljeet Kaur	Pr. Sumanjit Kaur
Pr. Harinder Kaur	Pr. Naina Mahajan
Pr. Gurjit Kaur	Pr. Nisha Kaur
Pr. Navneet Kaur	Pr. Purnima Kaur
Pr. Gurpreet Kaur	Pr. Tarandary Singh
Pr. Chahar Jain	
Pr. Kuldip Singh	
Pr. Harinder Kaur Aulakh	

TWO WEEK AICTE SPONSORED  
FACULTY DEVELOPMENT PROGRAMME  
ON

## "Design Challenges in Low Power VLSI Design"

04.12.2017 to 16.12.2017



Coordinator

Dr. Sandeep Singh Gill

Organized by

Department of Electronics and Communication  
Engineering

Guru Nanak Dev Engineering College  
Ludhiana

Gill Road, Gill Park, Ludhiana, Punjab - 141006  
E-mail: gndec.eco.fdp@gmail.com  
Phone: 0161-5064576(O)



## ABOUT THE INSTITUTE

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been striving persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various accredited graduate level B.Tech courses, the institute also imparts thirteen Postgraduate courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

## ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering, established in 1981, is one of the most dynamic departments of Guru Nanak Dev Engineering College. It was the first most diversification initiative by the college, 25 years after its establishment. The department is currently running NBA Accredited UG and PG courses in Electronics and Communication Engineering and has around 15 scholars enrolled for doctorate in areas like: Antenna Design, VLSI, Optical communication etc. Ever since its inception, the department has been the hub of academic excellence through some great teachers who have spread their wings all over the globe. The alumni of the department are not only excelling in India but also in the Silicon Valley and other hubs of Electronics Technology. They are at the forefront of the Telecom revolution of the last 20 years and manning pivotal positions in Telecom operators in India, South East Asia, Pacific region and Africa. In the last two years, as a part of an academically autonomous system, the department has been taken numerous quality initiative including revamping of syllabi so that it is in tune with the outcome based system as proposed in the Washington Accord. The

department is having very good pass percentage usually above 95% for UG/PG students. ECE Department is continuously maintaining strong international collaboration with outside world in form of joint research publications, editorial board memberships of reputed international journals.

## REGISTRATION

There is no registration fee for participants from academic institutes. All short-listed candidates are required to confirm their participation by sending the scanned copy of duly filled Registration form by Email to [gnedec.ecv.fdr@gmail.com](mailto:gnedec.ecv.fdr@gmail.com).

Shortlisting and confirmation of eligible candidates will be on a first come first served basis. Incomplete application forms will not be entertained. Registration forms should reach the coordinator by 27.11.2017.

## ELIGIBILITY

Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course. Applications from various fields like ECE/EE/CSE/IT and other related disciplines are invited.

Course Completion Certificate will be given if the attendance criterion is satisfied.

## TRANSPORT, BOARDING & LODGING

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

## TWO WEEK AICTE SPONSORED FACULTY DEVELOPMENT PROGRAMME

ON

## "Design Challenges in Low Power VLSI Design"

### Registration Form

Name (In block letters):

Gender:

Qualification:

Designation/Department:

Organization:

Address:

Mobile:

Email:

Accommodation in Campus: YES / NO

Sponsorship & Signature of Head of the College / Institute (with date & seal)

(Important: By signing above, head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)

## FDP Report

AICTE sponsored two week faculty development programme on 'Design Challenges in Low Power VLSI Design' was organised by Department of ECE in Guru Nanak Dev Engineering College, Ludhiana from 4<sup>th</sup> December, 2017 to 16<sup>th</sup> December, 2017. The aim of this course was to share the theoretical as well as practical concepts related to design issues in the field of low power VLSI. Chief Guest Prof. Shailendra Jain, Director SLIET addressed the participants and appreciated the initiative of conducting such kind of events which help in filling the gap between institute and industry by providing an industry focussed shape to research and teaching.

Sh. H. S. Jatana, Scientist and Group Head- Design & Process Group, Semi Conductor Laboratory, Department of Space, Govt. of India, Mohali delivered expert lectures on design of MOSFETs and various biasing techniques. Lab sessions on circuit-level tool Cadence virtuoso were conducted by Er. Uday, Scientist, SCL Mohali. Dr. Ashwani Rana from NIT, Hamirpur delivered expert talk on power evaluation in circuits, novel methodologies for MOSFET devices like FinFETs. Dr. Vinayak Hande from IIT Roorkee discussed design concepts of CMOS analog amplifiers and challenges in designing of low power analog integrated circuits. Dr. Balwinder Raj, Assistant Professor, NIT Jalandhar shared his expertise on various challenges in nanoscale era, FinFETs design etc. Dr. Kanav Kahol explained various innovations related to low power design and demonstrated various applications.

Faculty members from GNDEC, Ludhiana delivered expert lectures on various topics like optimization techniques, design of multigate MOSFETs and FinFET SRAM etc. Lab sessions on TCAD tool, one of the device specific tools, were conducted in detail by Er. Amit Saini, Cadre Design Systems. Around 50 participants from within and outside the institute attended this programme and were benefitted from the knowledge shared by experts. They found this course to be very informative as they got opportunity to interact with industry and academic experts.

  
Course Coordinator



# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

An Autonomous College U/S 2(f) and 12(B) of UGC Act 1956

Institute Accredited by NAAC (A Grade) under UGC & TCS

AICTE Approved, Punjab Govt. Aided Status, Affiliated to IKG Punjab Tech. University, Jalandhar


ISO : 9001:2008 Certified • UG Programmes accredited by IEI

Ref. No. ECE/713

Dated 07.12.2017

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Er. Gurjot Kaur Walia , Assistant Professor, Guru Nanak Dev Engineering College, Ludhiana conducted a **Lab Session on "VHDL" on 7.12.2017** during the **AICTE Sponsored Two week Faculty Development Programme on "Design Challenges in Low Power VLSI Domain"** being organized by Department of Electronics & Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana.

  
HOD (ECE)

3





# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1986

Institute Accredited by NAAC (A Grade) under UGC & TCS

AICTE Approved, Punjab Govt. Aided Status, Affiliated to IKG Punjab Tech. University, Jalandhar

ISO : 9001:2008 Certified • UG Programmes accredited by IEI

Ref. No. ECE-737

Dated 12/12/2017

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Sh. Uday Khambete, Scientist/Engineer 'E' SCL contributed in the following sessions on 11<sup>th</sup> and 12<sup>th</sup> December 2017 during the AICTE Sponsored Two week Faculty Development Programme on "Design Challenges in Low Power VLSI Design" being organized by Department of Electronics & Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from 4<sup>th</sup> December to 16<sup>th</sup> December, 2017.

1. Installation of PDK
2. Lab session on Virtuoso
3. Lab session on Layout using Virtuoso

  
HOD (ECE)

3



Dr. Narwant Singh Grewal honouring the expert Dr. Ashwani Rana, NIT Hamirpur.

**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

(An Autonomous College u/s 2(f) and 12(B) of UGC Act-1956.)



**AICTE**

*Sponsored*



**TWO WEEK FACULTY DEVELOPMENT PROGRAMME**

**ON**

**"Design Challenges in Low Power VLSI Design"**

**04.12.2017 to 16.12.2017**

Organized by -

**Department of Electronics and Communication Engineering**







Er. H.S.Jatana, Sceintist, SCL Mohali sharing his expertise



Inauguration ceremony of course



Er. Uday Khambete , Scientist, SCL Mohali sharing expertise on Cadence tool





Dr. Vinayak Hande, IIT Ropar delivering expert lecture

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
DEPARTMENT OF PRODUCTION ENGINEERING

CIRCULAR

Ref. No. PE/ 45/ 657 -1

Dated: -31/10/2017

HOD<sup>rs</sup> and the faculty members of (CE, ME, PE, CSE, IT, EE, ECE)

GNDEC, Ludhiana.

Sir,

This is for your kind information that the department of Production Engineering is going to organize Two week course from 11<sup>th</sup> -23<sup>rd</sup> December, 2017 under AICTE. You are requested to send your consent through proper channel to attend the same. Brochure for the same has been attached.

  
HOD (PE)

Completed Registration form along with 1-page write-up (on reasons to attend this course) should be sent by Email to [fdp.prod.gndec@gmail.com](mailto:fdp.prod.gndec@gmail.com).

**Dr. Rupinder Singh**  
Course Coordinator

**Pf. Manjot Singh Bedi**  
Course Co-Coordinator  
Department of Production Engineering  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab, 141006

Please send single email with attachments as:  
1-page write-up and scanned copy of the filled-in and signed form. The subject title of the email should be "Waste management by additive manufacturing".

#### IMPORTANT DATES

**Deadline for submitting Application: 15 Nov, 2017**  
**Notification of Acceptance: 30 Nov, 2017**  
**Course Dates: 11-23 Dec, 2017**

Incomplete application forms will not be entertained.

#### VENUE FOR COURSE

Seminar Hall, Central Workshop, GNDEC,  
Ludhiana.

#### DATE & TIME FOR REGISTRATION

December 11, 2017, 9 AM at the venue for the course.

#### ELIGIBILITY

Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course.

#### COURSE EVALUATION

Successful participants would be awarded 'Course Completion Certificate'.

#### REGISTRATION

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a Cheque/Demand Draft of Rs. 1000/- in the name of "Principal, GNDEC, Ludhiana".

The above amount will be refunded to the participant if he/she attends the course. In case a participant does not attend the course, the above amount will be forfeited. Shortlisting and confirmation of eligible candidates will be on a first come first served basis up to a maximum of 30 candidates.

#### TRANSPORT, BOARDING & LODGING

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

#### CHIEF PATRON

Principal, GNDEC, Ludhiana

#### PATRON

Dr. Jasmaninder Singh Grewal (HOD,P.E)

#### COURSE COORDINATOR

Dr. Rupinder Singh, Prof. P.E

#### COURSE Co-COORDINATOR

Pf. Manjot Singh Bedi, A.P, P.E

#### ORGANIZING COMMITTEE

Dr. Harpuneet Singh

Pf. Jagdeep Singh

Pf. Arshpreet Kaur

Pf. Kanwalpreet Sahni

Pf. Gauravdeep Singh

Pf. Parmjit Singh,

Pf. Gulraj Singh

and supporting staff

**AICTE sponsored**  
**Faculty Development Programme**

# Waste Management by Additive Manufacturing

**December 11 – 23, 2017**



**Department of Production Engineering**  
Guru Nanak Dev Engineering College Ludhiana, Punjab – 141006

**e-mail: [fdp.prod.gndec@gmail.com](mailto:fdp.prod.gndec@gmail.com)**  
**Phone: +91 98722-57575, +91 98035-66002**



## ABOUT THE INSTITUTE

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been straining persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various Accredited graduate level B.Tech courses vis-a-vis Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Mechanical Engineering, Production Engineering, Information Technology, the institute imparts instruction in eleven Postgraduate M.Tech courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

## ABOUT THE DEPARTMENT

The first batch of M.Tech. (Production Engineering) started as part-time programme in 1980 followed by M.Tech. (Production Engineering) full-time programme in 1983 under Mechanical Engineering department. The department was renamed as Department of Production Engineering on January, 2009 and is functioning independently. At present it offers undergraduate and postgraduate courses in Production Engineering. The department has laboratory and workshop facilities with modern sophisticated equipment to carry out research in all areas related to Production Engineering. The faculty actively participates in sponsored research and consultancy work. Both the UG/PG courses have been accredited by NBA (Tier-I) and all the courses offered by department are AICTE approved. The department is having very good pass percentage (instipulated time) usually above 95% for UG/PG students. Since 2009, as independent department, Production Engineering is continuously maintaining strong International collaboration with outside world in form of

joint research publications, editorial board memberships of reputed International journals.

## OBJECTIVE OF THE COURSE

- Application of additive manufacturing techniques for waste management.
- Hand on experience for preparation of additive manufacturing for management of waste.

## COURSE CONTENTS

- E-waste management
- Solid waste management
- Plastic solid waste management
- Unitary, Binary, Tertiary and Quatrini Techniques for Plastic solid waste management
- Functional prototypes using Plastic solid waste
- Additive manufacturing Route for Plastic solid waste management
- Investment casting for Plastic solid waste.

## COURSE BENEFICIARIES

Faculty members /Ph.D Research Scholars/  
Industry personnel/ Field engineer.

## RELATED DISCIPLINES

Production/Manufacturing/Mechanical/ Bio-medical/  
Bio-technology/ CSE/IT/Civil/Environment  
(Interdisciplinary).

**NOTE:** For additional copies of theregistration form, use a photocopy of this brochure or type in the format given. For further details:

<http://www.gndec.ac.in>

Form should be complete otherwise the application will be rejected

## AICTE sponsored Faculty Development Programme (FDP)

## Waste Management by Additive Manufacturing

### Registration Form

Name (in block letters) : \_\_\_\_\_

Designation : \_\_\_\_\_

Organization : \_\_\_\_\_

Mailing Address : \_\_\_\_\_

Age : \_\_\_\_\_ Sex ( M/F): \_\_\_\_\_

Mobile : \_\_\_\_\_

Email : \_\_\_\_\_

**Educational Qualifications:**

**Prior Exposure to such program:** Yes / No

**Accommodation in Campus:** YES / NO

**Signature of Applicant:**

**Sponsorship & Signature of Head of the College / Institute (with date & seal).**

(Important: By signing above head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)

**Proceeding of AICTE Sponsored Faculty Development Programme**

**On**

**WASTE MANAGEMENT BY ADDITIVE MANUFACTURING**

**11<sup>th</sup> Dec to 23<sup>rd</sup> Dec 2017**

**Course coordinator**

**Dr. Rupinder Singh**

**Professor**

**Department of Production Engineering**



**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

## **Report on**

# **AICTE Sponsored Faculty Development Programme On WASTE MANAGEMENT BY ADDITIVE MANUFACTURING held from 11<sup>th</sup> Dec to 23<sup>rd</sup> Dec 2017 (Twelve Days)**

A two week faculty development programme on “**Waste Management By Additive Manufacturing**” sponsored by AICTE was held at Production Engineering Department of Guru Nanak Dev Engineering College, Ludhiana, from 11<sup>th</sup> Dec to 23<sup>rd</sup> Dec.2017. The main focus of FDP was to bring researchers, academia and technocrats from different parts of the country to a common platform for exchanging and sharing the recent developments in the field of Production Engineering and Additive manufacturing with special focus on waste management. The FDP was attended by 53 participants from different streams like PE, ME, CSE, ECE, EE, CE, Physics and Computer Applications.

### **Inaugural Session:**

The esteemed personalities present on the inauguration of the programme:

Prof.(Dr.) O.P. Singh, Professor, Deptt of ME, BCET, Gurdaspur (Chief Guest)

Prof. (Dr.) Surinderbir Singh, Ex-Principal GNDEC Ludhiana (Guest of Honour)

Prof. (Dr.) Sehijpal Singh, Principal GNDEC Ludhiana

Prof. (Dr.) J.S.Grewal, HOD P.E, GNDEC Ludhiana

Dr. Rupinder Singh course coordinator, (from PE Dept. of GNDEC Ludhiana) welcomed all the respected dignitaries and participants and emphasized the benefits of such kind of resourceful activity. Prof.(Dr.) S.B.Singh Guest of Honour, Dr. Sehijpal Singh , Principal GNDEC, Ludhiana, Dr. J.S. Grewal, HOD PE appreciated the program organized by PE dept and highlighted the usefulness of managing waste in modern life.





Glimpse of lighting ceremony during inaugural session

The event was covered by print and electronic media during two week programme. It has been emphasized by the organizers that for better waste management hand on experience are must for managing waste through additive manufacturing route (which is one of the cost effective way).

**11/12/2017**

#### **Session I-II**

Prof. O.P. Singh, Deptt of ME, BCET, Gurdaspur, has delivered keynote address on **“Optimization of manufacturing system using Time Compression”**. In this session participants were made to learn about all time compression technique. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



#### **Session-III-IV**

Dr Rupinder Singh (PE) of GNDEC delivered talk on „Plastic waste for printing of bio-medical implants“ and „Plastic waste for printing application in clinical dentistry“. The talk was focused on

methodology for development of in-house low cost non-removable partial composite base dentures through FDM assisted investment casting. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



**12/12/2017**

**Session I**



Prof. Gaurav Dhuria, HOD M.E from DAVIET, Jalandhar outlined ANN based modelling and its applications in additive manufacturing.

**Session-II and III**

The talk from Dr. Sanjeev Kumar from PEC, Chandigarh was very informative on How to apply Taguchi analysis in research applications. He also explained use of MINITAB, for multifactor optimization. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



#### **Session-IV**

Dr Amit Kamra GNDEC Ludhiana delivered an expert a talk on „Research ethics“ and significance in field of research.



**13/12/2017**

#### **Session 1-II**

Dr Harpal Singh, Professor GNDEC laid stress on „Finite element analysis“. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).





### **Session-III**

Dr. J.S. Dureja, Pbi. Patiala gave a practical demonstration on “Design of experiments” and their applications in Mechanical engineering. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



### **Session-IV**

A discussion on “How to write Research papers” was delivered by Dr. Amit Kamra, GNDEC Ludhiana. In this session participants got the knowledge about the different types of techniques and methods of writing a world class paper.



**14/12/2017**

### **Session I**

Dr. Harwinder Singh, GNDEC Ludhiana has delivered a lecture on “Optimization technique”. In this session participants were acquainted with different concepts related to Production engineering. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



### **Session-II**

Dr. H.S. Rai, GNDEC Ludhiana has delivered a lecture on “E-Waste management issues”.



### Session-III-IV

Dr. Rupinder Singh GNDEC, Ludhiana has illuminated on “waste management by additive manufacturing”. In this session participants were gained with the knowledge of polymer recycling. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD). The major focus was on fabrication of PLA-HAp-CS biocompatible and biodegradable feedstock filament using twin screw extrusion



15/12/2017

Session-1



Dr. Rupinder Singh GNDEC, Ludhiana talked on “In-vitro studies of SS 316 L biomedical implants prepared by FDM, vapour smoothing and investment casting ”. In this session participants were gained with the knowledge of bio-medical printing. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



### **Session-II.**

Dr. S.S. Sehgal from CU, Gharuan outlined on zero waste management and Industry 4.0 concept.



### **Session-III.**

Dr. Harwinder Singh outlined that the utilization index represent the real picture of different parameters selected for advanced manufacturing technologies utilization in Indian manufacturing organization. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



#### **Session-IV**



Dr. Rupinder Singh outlined wear properties of rapid tooling with nano scale fillers for grinding applications in clinical dentistry. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

**16/12/2017**

#### **Session I-II**

A discussion on “Plagiarism and How to avoid it” was delivered by Dr. Akshay Girdhar GNDEC, Ludhiana. The commercial software Turnitin was used for giving live demonstration for managing ethical issues in publications as per UGC guidelines



### **Session III-IV**



Prof. Rupinder Singh highlighted recycling of plastic waste by multi material four dimensional printing. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

**18/12/2017**

**Session-I**





Prof. Rupinder Singh provided live demonstration for multi-material 3D printing for recycling of plastic waste. The participants were encouraged to perform experimental trials for preparing feed stock filament of fused deposition modelling for low cost open source printer.

### **Session-II-III**

Prof. Dr. Buta Singh Sidhu from MRSPTU Bathinda delivered expert talk on managing waste in thermal power plant as case study (of Guru Nanak Thermal Power Plant Bathinda).



### **Session IV**



Dr. G.S.Brar delivered expert talk on FEM modelling and analysis for 3D printed components.

**19/12/2017**

### **Session I**

Waste management and energy concept was outlined by Prof. Harmeet Singh from Mechanical Engg. Dept., GNDEC Ludhiana. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



### **Session II-III**

Dr. IPS Ahuja Prof. & Head Mechanical Engineering Dept., Punjabi University Patiala discussed the case studies for waste management with special focus on total quality management and zero waste management.



#### **Session IV**



Prof. J.S.Grewal, HOD P.E outlined the concept of coating techniques for managing/ reducing down time in thermal power plant. Various coating techniques with specific case studies were presented.

**20/12/2017**

#### **Session 1 & II**

Prof. Ishbir Singh outlined Additive Manufacturing/3D Printing and CAD/CAM. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).





### **Session III**

Dr Rupinder Singh from GNDEC Ludhiana gave his ideas on Sustainability of recycled ABS and PA6 by banana fiber reinforcement: Thermal, mechanical and morphological properties. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).



### **Session IV**

Dr. Harwinder Singh, Prof. Mechanical Engineering, GNDEC Ludhiana, outlined optimization techniques for managing waste, with tutorial session for hand on experience of the participants.



**21/12/2017**

**Session I-II**



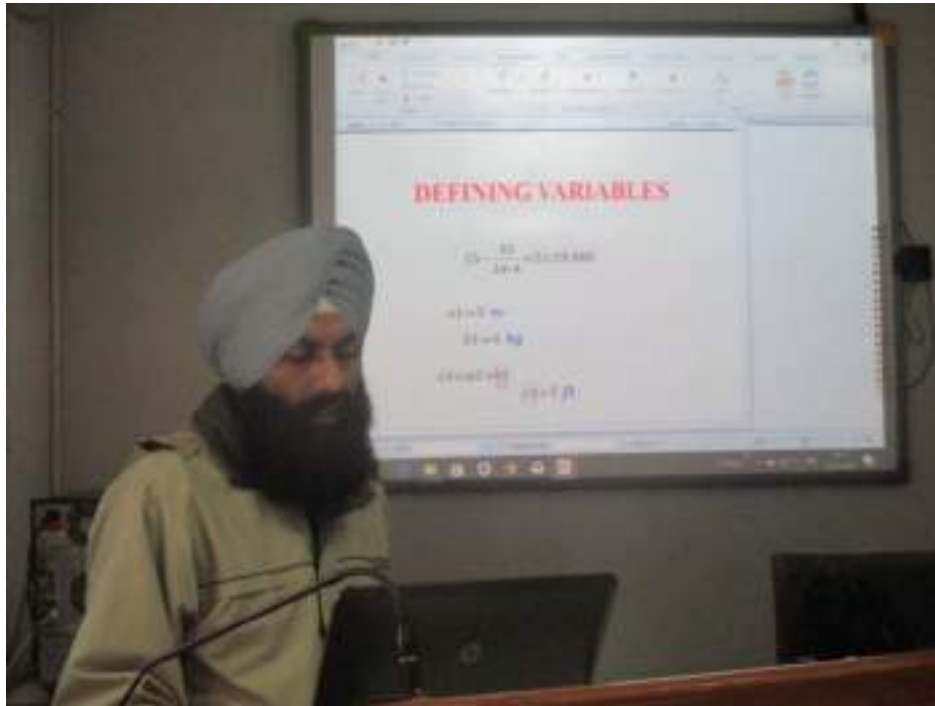
Dr. Rupinder Singh discussed the case studies for thermal analysis using DSC as tool for additive manufacturing applications. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

**Session III-IV**

Dr. Sukhpal S Chattha from Yadwindera Engg. College (Punjabi University, Patiala) outlined on thermal spray coatings for high temperature applications. This technique is used to reduce the down time in thermal power plants. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

**22/12/2017**

**Session 1**



Dr. G.S.Brar from GNDEC Ludhiana guided the participants for hand on practical session for addressing FEM problems.

**Session II-III**

Dr. V. Chawal from IKGPTU Jalandhar talked about managing waste. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

**Session IV**





Dr. Rupinder Singh from GNDEC Ludhiana outlined successful case studies with hand on experience, live demonstration for development of functional prototypes.

**23/12/2017**

### **Session 1**



The lab session for printing multi material on commercial FDM printer, melt flow index, twin screw extruder was provided to all the participants.

### **Session II**



Dr. Ajay Batish, Dean RSP from Thapar Institute of Engg. & Technology (Deemed to be University), Patiala talked on DOE for managing waste.

### **Session III-IV**



Dr. Sandeep Grover Dean Research from YMCA University of Science and Technology Faridabad outlined insight of waste management. The type of different wastes and its management principles were discussed. The detailed presentation is enclosed for better understanding (in PPT format, see attached CD).

## Valedictory Session

Dr.Sandeep Grover, Prof. Mechanical Engineering & Dean Research was the chief guest. Dr. Grover laid stress on the managing waste in cost effective manner in his talk. The program ended with vote of thanks by Dr. Rupinder Singh, P.E Department and by Dr. J.S.Grewal, HOD P.E on 22/12/18. Then the certificates were distributed to participants.



Glimpse of valedictory ceremony



**Attendance of students for FDP on 'Waste Management by Additive Manufacturing'**

S. No.	Name of student	11/12/2017	12/12/2017	13/12/2017	14/12/2017	15/12/2017	16/12/2017
1	Anmol Singh Mangat	Amol	Amol	Amol	Amol	Amol	Amol
2	Hardeep Singh	H Singh	H Singh	H Singh	H Singh	H Singh	H Singh
3	Harpreet Singh	Harpreet	Harpreet	Harpreet	Harpreet	Harpreet	Harpreet
4	Harsimrandeep Singh	Harsimran	Harsimran	Harsimran	Harsimran	Harsimran	Harsimran
5	Karanvir Singh	Karanvir	Karanvir	Karanvir	Karanvir	Karanvir	Karanvir
6	Ramanpreet Singh	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet

S. No.	Name of student	18/12/2017	19/12/2017	20/12/2017	21/12/2017	22/12/2017	23/12/2017
1	Anmol Singh Mangat	Amol	Amol	Amol	Amol	Amol	Amol
2	Hardeep Singh	H Singh	H Singh	H Singh	H Singh	H Singh	H Singh
3	Harpreet Singh	Harpreet	Harpreet	Harpreet	Harpreet	Harpreet	Harpreet
4	Harsimrandeep Singh	Harsimran	Harsimran	Harsimran	Harsimran	Harsimran	Harsimran
5	Karanvir Singh	Karanvir	Karanvir	Karanvir	Karanvir	Karanvir	Karanvir
6	Ramanpreet Singh	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet	Ramanpreet



Department of Production Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana



Sr. No. 22

**AICTE SPONSORED TWO WEEK FACULTY DEVELOPMENT PROGRAMME  
CERTIFICATE OF PARTICIPATION**

This is to certify that Prof/~~Dr~~/Mr/Ms Amol Singh Mangat  
From CNDCEC, Ludh. participated in the course

**WASTE MANAGEMENT BY ADDITIVE MANUFACTURING**

December 11-23, 2017

*[Signature]*  
HOD (PE)

*[Signature]*  
Course Coordinator





Department of Production Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana



Sr. No. 18

AICTE SPONSORED TWO WEEK FACULTY DEVELOPMENT PROGRAMME  
CERTIFICATE OF PARTICIPATION

This is to certify that Prof/Dr./Mr/Ms Harpreet Singh  
From CNDCEC, Ludhiana participated in the course

WASTE MANAGEMENT BY ADDITIVE MANUFACTURING

December 11-23, 2017

JS Grewal  
HOD (PE)

RS  
Course Coordinator



**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**  
An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956  
**Department of Production Engineering**

**Consolidated report on Faculty Development Program on 'Waste Management by Additive Manufacturing'.**

The faculty development program sponsored by AICTE on 'Waste Management by Additive Manufacturing' was organized by the Production Engineering department from 11 – 23 December, 2017. FDP was held under the guidance of Director GNDEC, Ludhiana and HOD Production Engineering. The program was designed for industrialist, environmentalist, researchers and faculty of various fields of Engineering, as it was an interdisciplinary course.

The experts from the various reputed institutes were present to deliver lectures and share their experiences in waste management and additive manufacturing. More than 45 participants from various institutions have attended the program to take benefits of expert talks and enhanced their knowledge in the field of waste management using additive manufacturing.

**Objectives of the program:**

1. To enhance the knowledge of participants in the field of additive manufacturing.
2. Waste management of plastic waste using additive manufacturing techniques.
3. Practice session on FDM to make samples using recycled plastic.
4. Knowledge related to blending of plastics to enhance their mechanical, electrical and thermal properties.

**Sessions of the program:**

- Session I: 09:15 am – 10:45 am  
Tea break (10:45 am – 11:00 am)
- Session II: 11:00 am – 12:30 pm  
Lunch break (12:30 pm – 01:15 pm)
- Session III: 01:15 pm – 02:45 pm  
Tea break (02:45 pm – 03:00 pm)
- Session IV: 03:00 pm – 04:30 pm



**Key points of FDP:**

- Types of waste and its management
- Introduction to additive manufacturing
- Various additive manufacturing techniques
- Management of waste using additive manufacturing
- Cost reduction in waste management
- E-waste management
- Solid waste management
- Investment casting for Plastic solid waste
- Blending of plastics for enhancing the properties as compare to matrix materials
- Practice session using FDM setup

**Speakers:**

Dr. Buta Singh (MRS Punjab Techninal University, Bathinda)  
Dr. Sukhpal Singh (Punjabi University, Talwandi Sabo campus)  
Dr. IPS Ahuja (Punjabi University, Patiala)  
Dr. JS Dureja (Punjabi University, Patiala)  
Dr. OP Singh (BCET, Gurdaspur)  
Dr. Sanjeev Kumar (PEC, Chandigarh)  
Dr. Sandeep Grover (YMCA, Faridabad)  
Dr. Amit Kamra (GNDEC, Ludhiana)  
Dr. Akshay Girdhar (GNDEC, Ludhiana)  
Dr. Rupinder Singh (GNDEC, Ludhiana)

**Organizing Committee:**

Dr. MS Saini (Chief Patron)  
Dr. JS Grewal (Patron)  
Dr. Rupinder Singh (Course Coordinator)  
Er. Manjot Singh Bedi (Course Co-coordinator)  
Dr. Harpuneet Singh  
Er. Jagdeep Singh



Er. Kanwalpreet Sahni


Er. Paramjit Singh

Er. Gauravdeep Singh

Er. Arshpreet Kaur

Er. Gulraj Singh

Course Coordinator

A handwritten signature in black ink, appearing to be 'Raj', with two arrows pointing outwards from the top and bottom of the signature.

HOD PE

A large, stylized handwritten signature in black ink, possibly reading 'J. Singh', with a horizontal line underneath.



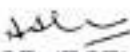
**GURU NANAK DEV ENGINEERING COLLEGE LUDHIANA**  
(Department of Electronics & Communication Engineering)  
(An Autonomous College under UGC Act.)

No. ECE/ 929

Date: 24.01.18

**NOTICE**

An expert demo on "CST Software" will be held in Computational Lab at 10.30 AM on 25.01.2018. The demo will be delivered by Ms. Jyoti, Electronic, Ahmedabad. All faculty members are requested to attend.

  
HOD (ECE)

Cc to: -

1. All faculty members
2. Office copy.

1. HOD	1. SSG
2. VOS	2. AICS
3. IKA	3. NS
4. J. Rao	4. EED
5. T	5. MZ
6. J. Rao	6. P. K.
7. J. Rao	7. J. P.
8. J. Rao	8. J. P.
9. J. Rao	9. J. P.
10. J. Rao	10. J. P.
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20. J. Rao	20. J. P.

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G



# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

An Autonomous College U/S 2(f) and 12(B) of UGC Act 1956


NBA Accredited UG Programmes under Tier-I (Washington Accord), "A" Grade NAAC Accredited, TCS Accredited  
AICTE Approved, Punjab Govt. Aided Status - Affiliated to I. K. Gujral Punjab Technical University, ISO : 9001:2008 Certified

Ref. No. ECE/938

Dated 25.01.2018

Mr. Chandresh Dhote, Application Engg., Jyoti Electronic, Ahmedabad, Gujarat has given demonstration on "CST Software" in ECE department, GNDEC, Ludhiana on 25.01.2018.

We highly appreciate his efforts.

  
HOD (ECE)

Head of  
Electronics Engineering  
Guru Nanak Dev Engineering College  
LUDHIANA

  
25/01/2018

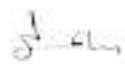


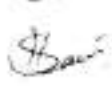
Dt. 25.1.2018

1st Talk and Demonstration of CST Microwave Studio

Resource Person: Chandrakesh

Jyoti Electronics, Ahmednagar

Faculty and Student Name      Signature

- |                                      |  |
|--------------------------------------|--|
| 1. Narwant Singh (AP, ECE)           |    |
| 2. Balwinder Singh Malviel (AP, ECE) |    |
| 3. Munish Rattan (AP, ECE)           | Munish Rattan  |
| 4. Chahat Jain (AP, ECE)             |  |
| 5. Simranjit Kaur (AP, ECE)          |   |
| 6. Jashraj Kaur (M.Tech, ECE)        | Jashraj Kaur   |
| 7. Prabhjot Kaur (M.Tech ECE)        | Prabhjot Kaur  |
| 8. Gurspreet Kaur (M.Tech ECE)       | Gurspreet Kaur   |
| 9. Kirandeep Kaur (M.Tech ECE)       | Kirandeep Kaur   |
| 10. Hansimranjit Kaur (M.Tech ECE)   | Hansimranjit Kaur  |
| 11. Harpreet Kaur Gill (M.Tech ECE)  | Harpreet Kaur Gill   |



**Department of Electronics and Communication Engineering**

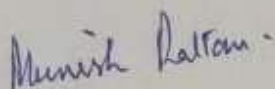
**Guru Nanak Dev Engineering College, Ludhiana**

### **ACTIVITY REPORT**

**Name of Activity: Demo on "CST Software"**

**Date: 25-01-2018**

**Report:** A demonstration of CST Microwave Studio was held in Computational Lab of ECE Department on 25.01.2018. The talk was delivered by Mr. Chandresh Dhote, Application Engineer, Jyoti Electronics, Ahmedabad. Mr. Chandresh highlighted the features of CST Microwave studio for use in Antennas and Microwave applications. Five faculty members and six students of M. Tech. ECE attended this demonstration.



**Dr. Munish Rattan**

**Incharge, Microwave Engineering Lab**

## COURSE OBJECTIVE

Low Power has emerged as a Principal theme in today's electronics industry. With the remarkable success and growth of the class of personal computing devices (portable desktops, audio- and video-based multimedia products) and wireless communications systems (personal digital assistants and personal communicators), demand of high-speed computation and complex functionality with low power consumption has increased. In the past, the major concerns of the designer were area, performance, cost and reliability; power consideration was mostly of only secondary importance. In recent years, however, this has begun to change and power is being given comparable weight along with area and speed considerations. Thus, the need for low power has caused a major paradigm shift where power dissipation has become as important a consideration as performance and area.

Many issues are faced by designers at architectural, logic, circuit and device levels which are required to be overcome by efficient techniques. This course will address the latest trends and future challenges that must be met to design low power, high performance electronic systems.

## COURSE CONTENTS

- Low power high performance electronic systems
- Design and Analysis of Antennas for low power applications
- Low power VLSI circuits & systems
- Low power electronics for Signal & Image Processing
- Wireless & Optical communication for low power applications
- Hands-on sessions on relevant tools

## IMPORTANT DATES

Submission of Registration form by 05.03.2018

Acceptance Notification by 07.03.2018

## DATE & VENUE FOR REGISTRATION

12.03.2018 (9AM) at Testing & Consultancy Cell (TCC) Seminar Hall, GNDEC, Ludhiana

## CONTACT DETAILS

**Dr. Sandeep Singh Gill**

Professor & Head

Department of Electronics & Communication Engg.

Guru Nanak Dev Engineering College

Gill Road, Gill Park, Ludhiana.

Punjab - 141006

E-mail: qipece@gmail.com

Phone: 0161-5064576(O)

## PATRON

**Dr. Sehijpal Singh (Principal)**

Guru Nanak Dev Engineering College, Ldh.

## COORDINATOR

**Dr. Sandeep Singh Gill**  
(HOD ECE)

## ORGANISING COMMITTEE

Prof. Ameeta Seehra

Prof. Narwant Singh

Dr. Balwinder Singh

Dr. Munish Rattan

Dr. Baljeet Kaur

Prof. Harminder Kaur

Prof. Gurjot Kaur

Prof. Navneet Kaur

Prof. Gurnurpreet Kaur

Prof. Chahal Jain

Prof. Kuldeepak Singh

Prof. Harminder Kaur Aulakh

Prof. Jasmeet Kaur

Prof. Daljit Singh

Prof. Sapanjot Kaur

Prof. Simranjit Kaur

Prof. Naazia Makkar

Prof. Nishu Kansal

## ONE WEEK QIP SHORT TERM COURSE ON

*"Design Issues  
in*

*Low Power Applications  
in Electronics"*

(12<sup>th</sup>-16<sup>th</sup> March, 2018)



## COORDINATOR

**Dr. Sandeep Singh Gill**

## ORGANISED BY

**Department of  
ELECTRONICS & COMMUNICATION  
ENGINEERING**

**Guru Nanak Dev Engineering College**

Gill Road, Ludhiana, Punjab-141006

Phone : 0161- 5064576 (O)

E-mail: qipece@gm3il.com

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
 Department of Electronics & Communication Engineering  
***One week QIP Short Term Course on***  
**“DESIGN ISSUES IN LOW POWER APPLICATIONS IN ELECTRONICS”**  
**(March 12-16, 2018)**

**Schedule**

	12 <sup>th</sup> March, 2018 (Monday)	13 <sup>th</sup> March, 2018 (Tuesday)	14 <sup>th</sup> March, 2018 (Wednesday)	15 <sup>th</sup> March, 2018 (Thursday)	16 <sup>th</sup> March, 2018 (Friday)
9am-10am	Registration	<u><b>Session-1</b></u> Dr. Brajesh Kumar Kaushik IIT Roorkee	<u><b>Session-1</b></u> Dr. Baljeet Kaur GNDEC Ludhiana	<u><b>Session-1</b></u> Dr. Balwinder Singh Dhaliwal GNDEC Ludhiana	<u><b>Session-1</b></u> Dr. Amit Kamra GNDEC Ludhiana
10am-11am	<u><b>Keynote Address</b></u> Dr. Sandeep Singh Gill GNDEC, Ludhiana				
11am-11:30am	HIGH TEA	TEA	TEA	TEA	HIGH TEA
11:30am-1:30pm	<u><b>Session-1</b></u> Dr. Sam Darshi IIT Ropar	<u><b>Session-2</b></u> Dr. Brajesh Kumar Kaushik IIT Roorkee	<u><b>Session-2</b></u> Dr. Akshay Girdhar GNDEC Ludhiana	<u><b>Session-2</b></u> Dr. Simranjit Singh Punjabi University Patiala	<u><b>Session-2</b></u> Dr. Sujata Pal IIT Ropar
1:30pm-2:30pm	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
2:30pm-4:30pm	<u><b>Session-2</b></u> Dr. Brajesh Kumar Kaushik IIT Roorkee	<u><b>Session-3</b></u> Dr. Munish Rattan GNDEC Ludhiana	<u><b>Lab Session</b></u> Er. Navneet Kaur, Er. Gurpurneet Kaur GNDEC Ludhiana	<u><b>Session-3</b></u> Dr. Simranjit Singh Punjabi University Patiala	
4:30pm-4:45pm	TEA	TEA	TEA	TEA	







Photo" Dr. Brajesh Kumar Kaushik (Resource Person), IIT Roorkee



Photo: Dr. Sam Darshi (Resource Person), IIT Ropar





Photo: Lab session on TCAD tool – By Er. Navneet Kaur and Er. Gurpurneet Kaur (Resource Persons) from GNDEC, Ludhiana .

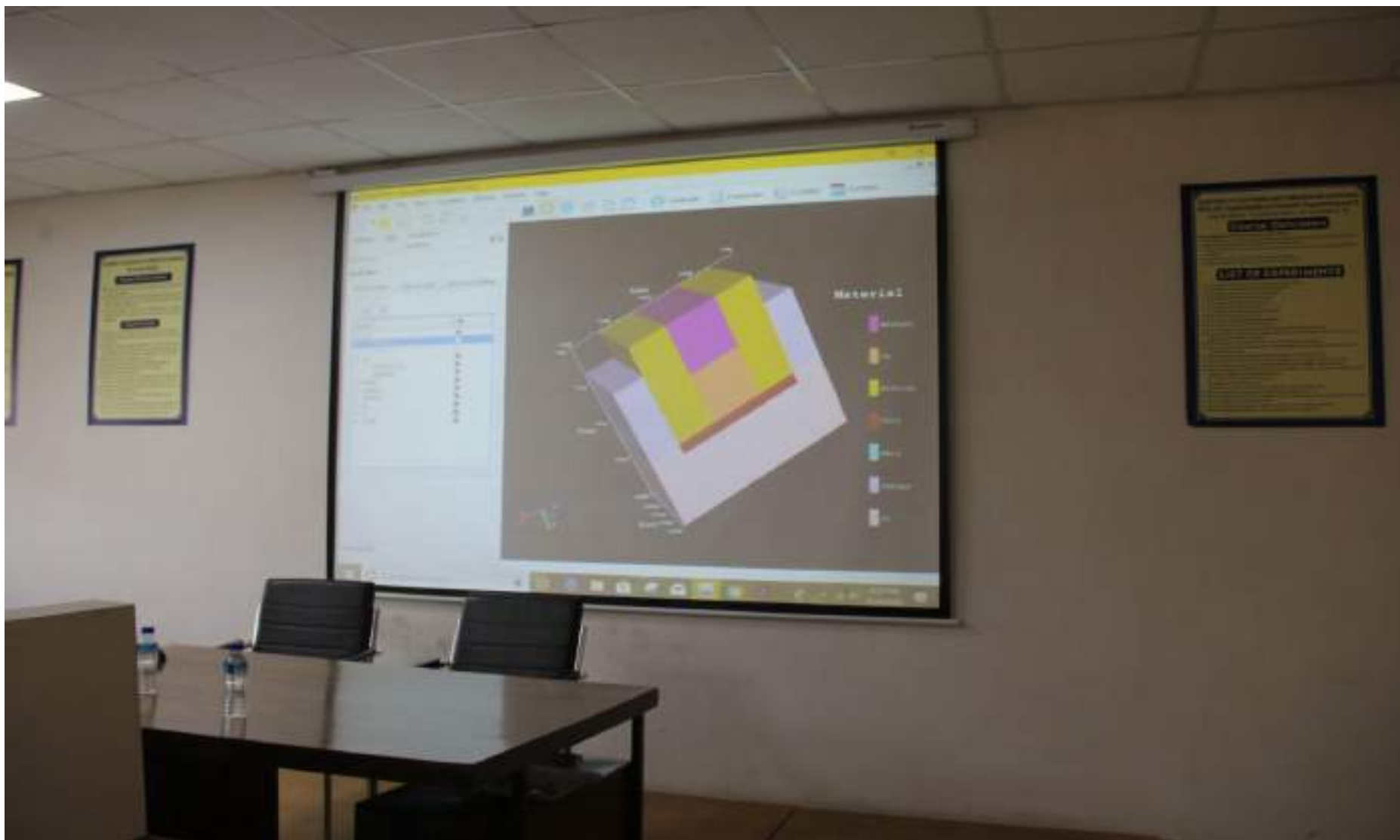


Photo: Lab session on TCAD tool – By Er. Navneet Kaur and Er. Gurpurneet Kaur (Resource Persons) from GNDEC, Ludhiana .



Photo: Participants of STC





Photo: Valedictory session of STC

**Report on**  
**One week QIP sponsored Short Term Course on "Design Issues in Low Power Applications in Electronics" held from March 12-16, 2018**

The department of Electronics and communication successfully organized one week QIP sponsored Short Term Course on "Design Issues in Low Power Applications in Electronics" from March 12-16. Low power has emerged as a principal theme in today's electronics industry. With the remarkable success and growth of the class of personal computing devices (portable desktops, audio- and video-based multimedia products) and wireless communications systems (personal digital assistants and personal communicators), demand of high-speed computation and complex functionality with low power consumption has increased. In the past, the major concerns of the designer were area, performance, cost and reliability; power consideration was mostly of only secondary importance. In recent years, however, this has begun to change, and power is being given comparable weight along with area and speed considerations. Thus, the need for low power has caused a major paradigm shift where power dissipation has become as important a consideration as performance and area.

Many issues are faced by designers at architectural, logic, circuit and device levels which are required to be overcome by efficient techniques. This course ~~will~~ address the latest trends and future challenges that must be met to design low power, high performance electronic systems. Few topics covered in this course are Low Power VLSI design and interconnects, Technique for low power devices: Paradigm of current and upcoming wireless sensors networks etc. The total participants in the workshop were around 40. The resource persons from GNDEC Ludhiana and other reputed institutions including IIT Roorkee, IIT Ropar and Punjabi University, Patiala have shared their expertise among the participants.



**Chief Coordinator**

**QIP STC on "Design Issues in Low Power Applications in Electronics" (12 -16 March, 2018)**

<b>S. No.</b>	<b>Name of Participant</b>	<b>Designation</b>	<b>Institute Name</b>
1	Sandeep Singh Gill	Assistant Professor	GNDEC, Ludhiana
2	Devinder Singh Pathania	Assistant Professor	GNDEC, Ludhiana
3	Ameeta Seehra	Assistant Professor	GNDEC, Ludhiana
4	Narwant Singh	Assistant Professor	GNDEC, Ludhiana
5	Balwinder Singh Dhaliwal	Assistant Professor	GNDEC, Ludhiana
6	Munish Rattan	Assistant Professor	GNDEC, Ludhiana
7	Baljeet Kaur	Assistant Professor	GNDEC, Ludhiana
8	Harminder Kaur	Assistant Professor	GNDEC, Ludhiana
9	Gurjot Kaur Walia	Assistant Professor	GNDEC, Ludhiana
10	Navneet Kaur	Assistant Professor	GNDEC, Ludhiana
11	Gurpurneet Kaur	Assistant Professor	GNDEC, Ludhiana
12	Chahat Jain	Assistant Professor	GNDEC, Ludhiana



13	Harminder Kaur Aulakh	Assistant Professor	GNDEC, Ludhiana
14	Kuldeepak Singh	Assistant Professor	GNDEC, Ludhiana
15	Daljit Singh	Assistant Professor	GNDEC, Ludhiana
16	Sapanjot Kaur Sandhu	Assistant Professor	GNDEC, Ludhiana
17	Simranjit Kaur	Assistant Professor	GNDEC, Ludhiana
18	Naazia Makkar	Assistant Professor	GNDEC, Ludhiana
19	Nishu Kansal	Assistant Professor	GNDEC, Ludhiana
20	Tarandeep Singh	Assistant Professor	GNDEC, Ludhiana
21	Preeti Pannu	Assistant Professor	GNDEC, Ludhiana
22	Taranjit Kaur	Assistant Professor	GNDEC, Ludhiana
23	Sukhwinder Singh	Assistant Professor	GNDEC, Ludhiana
24	Sunderjit Singh Gill	Assistant Professor	BCET, Ludhiana
25	Sanamdeep Singh	Research Scholar	GNDEC, Ludhiana
26	Vikramjit Singh	Research Scholar	GNDEC, Ludhiana

27	Inderjit Singh	Assistant Professor	DAV university, jalandhar
28	Sudhakar Pandey	HOD	Akal College of Engg.and Technology, Eternal University, Baru Sahib, HP
29	Rekha Devi	Assistant Professor	CDAC Mohali
30	PriyaDarshni	Assistant Professor	LCET, Katani Kalan
31	Sammerpreet Singh	Research Scholar	SGGSWU, Fatehgarh Sahib
32	Anita Dogra	Research Scholar	SGGSWU, Fatehgarh Sahib
33	Parveen Khan	Research Scholar	SGGSWU, Fatehgarh Sahib
34	Rajveer Kaur Sidhu	Research Scholar	SGGSWU, Fatehgarh Sahib
35	Rohin Gupta	Research Scholar	GNDEC, Ludhiana
36	Kapil Sharma	Assistant Professor	GNDEC, Ludhiana
37	Vikas Jain	Lecturer	VTI Rohtak
38	Amandeep Garcha	Lecturer	BBSBGPC, Moga
39	Jasmeet Kaur	Assistant Professor	GNDEC, Ludhiana
40	Avneet Kaur	Assistant Professor	GNDEC, Ludhiana

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

Department of Information Technology

No: IT/36/116

Dated: 5/2/18

QIP Coordinator  
Guru Nanak Dev Engineering College,  
Ludhiana

Sir,

This is in reference to the QIP course on "Challenges and opportunities in Medical Image Processing" sanctioned to us vide RK98/1042 dated 4/8/2017.

In this context, we wish to conduct the course from 7<sup>th</sup> March 2018 to 11<sup>th</sup> March 2018 (05 days). We also want to make a slight change in the title i.e. "Insights of Image Processing and their Recent Trends".

Dr. Akshay Girdhar, Professor (IT) and Dr. Amit Kamra, Assistant Professor (IT) will be the coordinators for the above course.

This is for your kind information and consent.

Attny  
[Signature]

[Signature]  
HOD (IT)



## **ELIGIBILITY**

The STC is interdisciplinary and is open to all faculty members of degree level engineering colleges from CSE, IT, EE, ECE, ME Production departments, Math's, Physics and computer science applications departments. Research Scholars and industry personnel working in the concerned areas are also eligible.

## **HOW TO APPLY**

Applicants can fill the registration form only in **online mode** available at [http://it.gndec.ac.in/STC\\_ro](http://it.gndec.ac.in/STC_ro).

After successful registration, pdf form will be generated and applicants are required to download the form and send the form duly signed from sponsoring organization to [amit\\_kamra@gndec.ac.in](mailto:amit_kamra@gndec.ac.in) before deadline along with scanned copy of Demand Draft/Cheque.

Last date for receipt of  
Application: **28.02.2018**  
Date of Intimation  
regarding final Selection: **02.03.2018**

Brochure can also be downloaded from  
our website: [http://it.gndec.ac.in/STC\\_ro](http://it.gndec.ac.in/STC_ro)

### **ADDRESS FOR CORRESPONDENCE**

Dr. Amit Kamra (Asstt. Prof.)

Contact: - 98142-29753

Department of Information Technology

Gill Road, Gill Park, Ludhiana-141006, Punjab.

Email: - [amit\\_kamra@gndec.ac.in](mailto:amit_kamra@gndec.ac.in)

## **REGISTRATION**

There is no registration fee for the STC but an amount of Rs 1000 (Refundable) in form of Cheque/DD in favour of Principal GNDEC is required. The above amount will be refunded to the participant if he/she attends the STC. In case a participant does not attend the STC, the above amount will be forfeited. All shortlisted candidates are required to confirm their participation by submitting duly signed registration form generated online to [amit\\_kamra@gndec.ac.in](mailto:amit_kamra@gndec.ac.in)

## **TRANSPORT, BOARDING & LODGING**

All outstation Participants are entitled for normal Bus fare/2<sup>nd</sup> class AC railway fare to and fro by the shortest route from their college to GNDEC, Ludhiana. Limited accommodation will be provided in the students Hostels or Guest House on sharing basis (subject to availability).

### **CHIEF PATRON**

**Dr. Sehijpal Singh**

(Principal, GNDEC)

### **Convener**

**Dr. K.S. Mann, HOD (IT)**

### **Coordinators**

**Dr. Akshay Girdhar,  
Professor (IT)**

**Dr. Amit Kamra,  
Asstt. Prof (IT)**

## **QIP Short Term Course**



**On**

## **Insights of Image Processing and their Recent Trends**

**March 7, 2018- March 11, 2018**

### **Organized by**

**Department of Information  
Technology  
Guru Nanak Dev Engineering College  
Ludhiana, Punjab-141006**

**Email: [amit\\_kamra@gndec.ac.in](mailto:amit_kamra@gndec.ac.in)  
Contact: -98142-29753**

## **ABOUT THE INSTITUTE**

Guru Nanak Dev Engineering College (GNDEC), Ludhiana is one of the oldest and a premier Engineering Institute of India straining persistently in the field of education by comprehending the need for up-liftment of rural youth in highly competitive, technologically elevated society and understanding the thirst for knowledge of students and quenching it in general. The foundation stone of the college was laid by Honorable Dr. Rajendra Prasad Ji, President of India on 8<sup>th</sup> April, 1956. The institution runs seven B.Tech., thirteen M.Tech., MBA and MCA besides being a QIP centre for Ph.D.

The College is affiliated with I.K. Gujral Punjab Technical University (IKGPTU). The College STCs are approved by All India Council for Technical Education, New Delhi. This is the first Engineering College of Punjab, which was conferred Autonomous Status by University Grants Commission(UGC), New Delhi in 2012 under section 2(f) and 12(B) of UGC Act 1956. Institution is accredited by National Assessment and Accreditation Council (NAAC) (A Grade) and TCS. The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla highway in Punjab.

## **ABOUT THE DEPARTMENT**

The department of Information Technology in Guru Nanak Dev Engineering College, Ludhiana was established in 2001. The mission of the Department of Information Technology is to impart high quality post graduate and undergraduate education and carry out leading-edge research in the discipline of Information Technology. The department currently runs academic program leading to the award of B.Tech. in Information Technology degree of I.K.G Punjab Technical University Jalandhar. The B.Tech (IT) program of department has been accredited twice by the NBA.

## **ABOUT FDP**

This STC aims at providing strong theoretical background along with practical experience in the field of Image Processing (IP). It will lay stress on visualization and analysis of the images that could be efficiently done with the help of image processing tools. In addition, the STC will enable participants to get an idea of several applications of the image processing that could be further useful in their future research endeavor.

## **MAJOR COURSE CONTENTS**

- Fundamental of IP (in spatial and Frequency domain).
- Image Degradation and restoration
- Digital Image Filtering
- Segmentation and Object Localization.
- Hands-on Experiences in MATLAB
- Research areas of IP

## **RESOURCE PERSON**

Eminent Speakers from

- IKGPTU, Jalandhar
- Thapar Univ. Patiala
- UIET, Chandigarh.
- GNDEC , Ludhiana

will be handling the sessions.

## **QIP Short Term Course**

### **Insights of Image Processing and their Recent Trends**

Name (in block letters): \_\_\_\_\_

Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Cheque/DD No: \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Age: \_\_\_\_\_ Gender (M/F): \_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Educational Qualifications: \_\_\_\_\_

*Accommodation Required: Yes/ No*

Signature of Applicant: \_\_\_\_\_

Sponsorship & signature of Head of the College/ Institute (with date & seal)

**Form should be complete otherwise application will be rejected.**



GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
Welcomes You  
To  
QIP Sponsored  
SHORT TERM COURSE  
On  
INSIGHTS OF IMAGE PROCESSING  
& THEIR RECENT TRENDS  
From 7<sup>th</sup> March to 11<sup>th</sup> March, 2018  
Organized by  
Department of Information Technology



QIP sponsored STC by IT Deptt. From 7/3/18 to 11/3/18

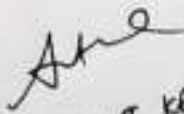
Name	Session 1	Session 2	Session 3	Session 4
Priyanka Arora				
Mandeep Singh	MSI	MSI	MSI	MSI
Gagandeep Kaur	Gagan	Gagan	Gagan	Gagan
Jasmin Kaur	Jasmin Kaur	Jasmin Kaur	Jasmin Kaur	Jasmin Kaur
Purnima Bakshi				
Vimal Vairwala	Vimal	Vimal	Vimal	Vimal
Bhaskinder Kaur	Bhaskinder Kaur	Bhaskinder Kaur	Bhaskinder Kaur	Bhaskinder Kaur
Divyadeep Kaur	Divyadeep	Divyadeep	Divyadeep	Divyadeep
Maninder Kaur	Maninder Kaur	Maninder Kaur	Maninder Kaur	Maninder Kaur
Taranjit Kaur	Taranjit Kaur	Taranjit Kaur	Taranjit Kaur	Taranjit Kaur
Gurwinder Kaur	Gurwinder	Gurwinder	Gurwinder	Gurwinder
Nancy	Nancy	Nancy	Nancy	Nancy
Kamal Nain Sharma	Kamal	Kamal	Kamal	Kamal
Gurpreet Kaur	Gurpreet Kaur	Gurpreet Kaur	Gurpreet Kaur	Gurpreet Kaur
Gayatri	Gayatri	Gayatri	Gayatri	Gayatri
Hardeep Kaur	Hardeep Kaur	Hardeep Kaur	Hardeep Kaur	Hardeep Kaur
Mehak	Mehak	Mehak	Mehak	Mehak
Dinesh Anand	D	D	D	D
Manan Kawatra	Manan	Manan	Manan	Manan
Divya Sharma	Divya Sharma	Divya Sharma	Divya Sharma	Divya Sharma
Hardeep Singh Jawanda			AS	AS
Kriti Verma	Kriti Verma	Kriti Verma	Kriti Verma	Kriti Verma
Ashima Malhotra	Ashima Malhotra	Ashima Malhotra	Ashima Malhotra	Ashima Malhotra
Gurwinder Singh				

Sanvet Sapra	Sanvet	Sanvet	Sanvet	Sanvet
Geetika Gupta	Geetika Gupta	Geetika Gupta	Geetika Gupta	Geetika Gupta
Japreet Kaur	Japreet	Japreet	Japreet	Japreet
Sukhdeep Kaur	Sukhdeep	Sukhdeep	Sukhdeep	Sukhdeep
Maninder Kaur	Maninder Kaur	Maninder Kaur	Maninder Kaur	Maninder Kaur
Manjot Kaur	Manjot Kaur	Manjot Kaur	Manjot Kaur	Manjot Kaur
Harjot Kaur Gill	Harjot	Harjot	Harjot	Harjot
K S Mann	K S Mann	K S Mann	K S Mann	K S Mann
Manpreet Singh	Manpreet	Manpreet	Manpreet	Manpreet
Amit Kamra	Amit	Amit	Amit	Amit
Kamaljit Kaur Dhillon	Kamaljit	Kamaljit	Kamaljit	Kamaljit
Pankaj Bhambri				
Karwardeep Singh	Karwardeep	Karwardeep	Karwardeep	Karwardeep
Rupinder Kaur	Rupinder	Rupinder	Rupinder	Rupinder
Jasmeen Gill	Jasmeen	Jasmeen	Jasmeen	Jasmeen
Shaminder Singh	Shaminder	Shaminder	Shaminder	Shaminder
Hitika Gupta	Hitika Gupta	Hitika Gupta	Hitika Gupta	Hitika Gupta
Navtej Singh Ghuman	Navtej Singh	Navtej Singh	Navtej Singh	Navtej Singh

**Event Report of 1 week FDP "Insights of Image Processing and their recent trends" held from 07/03/2018 - 11/03/2018 conducted by IT Department.**

Information Technology department conducted FDP on o give a brief about this course that started on 7 March 2018 where Dr Akshay Girdhar from GNDEC started with basic of Image Processing. Dr. Anjali Goyal from GNIMT Ludhiana lecture was based on CBIR, medical imaging, biomedical engineering and health informatics. Dr Jagroop Singh, from DAVIET Jalandhar spoke about image compression. Mr. Jagdeep singh from GNDEC gave hands on session for MATLAB and weka . To cater the issue of plagiarism, Dr Akshay Girdhar presented a very detailed presentation on how to avoid plagiarism.

Dr. Vipul Sharma from IKGPTU gave lecture on how to use mendeley and writing a world class paper. He also explained use of Mendely, how to access various database. Dr. Jitender Vermani, CSIO Chandigarh spoke about image resolution and his research on cancer diagnosis. Dr Mandeep Singh from Thapar University presented his views on Liver Characterization. The FDP is designed to bring Researchers, Academia and Technocrats from different parts of the country to a common gathering for exchanging and sharing the recent developments in the field of Medical imaging. Dr. Navdeep Kanwal from Punjabi university spoke on image forensics. On the final day Dr. Savita Gupta, director UIET presented some latest case studies and practical examples that enrich concept in the field of Medical imaging, Biomedical Engineering. Principal GNDEC and HOD (IT) thanks all the participants for their keen learning on image processing applications .

  
Dr. AMIT KAMEA



**2018-2019**

# GURU NANAK DEV ENGINEERING COLLEGE LUDHIANA

(Department of Electronics & Communication Engineering)

No. ECE/1747

Date: 17/9/18

## NOTICE

The department of ECE in organizing a three day **Entrepreneurship Awareness Camp (EAC)** in co-ordination with STEP, GNDEC, Ludhiana. This EAC is compulsory for all students of **B.Tech (ECE), 7<sup>th</sup> semester (section B), M.Tech (ECE) I<sup>st</sup> semester (Full time), and M.Tech (ECE) III<sup>rd</sup> Sem Full -time students**. So all students of these class are required to be present to attend the EAC during 9.45 am to 3 pm on **18-09-2018, 20-09-2018 and 21-09-2018** in STEP, GNDEC, Ludhiana. The following teachers shall accompany the students during these days.

Date	Time Schedule	Name of Teachers
18/09/2018	10 AM to 12:30 PM	Pf. Baljeet Kaur, Pf. Kuldeepak Singh
	12:30 PM to 3 PM	Pf. Narwant Singh Grewal, Pf. Gurjot Kaur
20/09/2018	10 AM to 12:30 PM	Pf. Narwant Singh Grewal, Pf. Baljeet Kaur
	12:30 PM to 3 PM	Pf. Gurjot Kaur, Pf. Gurneet Kaur
21/09/2018	10 AM to 12:30 PM	Pf. Baljeet Kaur, Pf. Avneet Kaur
	12:30 PM to 3 PM	Pf. Narwant Singh Grewal, Pf. Kuldeepak Singh

HOD (ECE)

cc:-

1. Principal for information
2. DNB
3. All Concerned Teachers
4. Prof GJK/NM for record
5. Office Copy

Have these teachers  
adjusted their classes of  
other years ??

Sek

HOD

PK / Sec  
P. Grewal

Scheduling has been  
taken care of while  
putting them on duty.  
HOD

**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

(Department of Electronics & Communication Engineering)

No. 1754/1

Date: 21.09.2018

**Activity Report**

Three day Entrepreneurship Awareness Camp (EAC) was organized by the department of ECE in coordination with Science & Technology Entrepreneurs' Park (STEP). The target audience was final year students of B.Tech and all M.Tech students of ECE department. Department faculty members accompanied the students. The objective of this three-day camp was to enhance the entrepreneurial skills of the students. Students were exposed to different aspects of entrepreneurship, including opportunity guidance, services offered by agencies of support system etc. A visit to the industries located in the STEP-GNDEC was also arranged to bring the students in direct touch with practicing entrepreneurs.

Around 60 students participated in this camp and benefitted from it. They came to know about various practical aspects of setting up a business and becoming an entrepreneur. Resource persons Dr. Arvind Dhillon, Director, STEP and Dr. Surinderbir Singh (Expert) guided the students and made them aware of various opportunities and support provided to them at an initial stage and further, the whole process. They motivated the students to make use of available facilities and come forth with their ideas and utilize their skills. They were guided on how to make and present a business plan. Dr. V.J. Rai, CA Shalini and Sh. R. K. Parmar were the experts from MSME who shared their expertise with the students.

On the last day of camp, certificates were distributed to the participating students. Overall, it was a great learning experience for the students as well as the faculty members.

  
HOD (ECE)





Students visiting the industries located within STEP campus and interacting with entrepreneurs



Students visiting the industries located within STEP campus and interacting with entrepreneurs



Students interacting with entrepreneurs





Expert Dr. Surinderbir Singh interacting with and motivating the students



Group photo on the conclusion day of 3 day Camp



Dr. Arvind Dhingra, Director, STEP and Dr. Surinderbir Singh, Expert giving away the certificates to participants





Dr. Arvind Dhillon, Director, STEP and Dr. Surinderbir Singh, Expert giving away the certificates to participants



Expert interacting with the students



Expert interacting with students



## List of students for Entrepreneurship Camp

S. No.	Name of student	Roll No.	Class	Institute
1	RAM KUMAR	1507862	B.Tech	GNDEC Ludhiana
2	RAVI KUMAR BHAGAT	1507863	B.Tech	GNDEC Ludhiana
3	RAVINDERDEEP KAUR	1507864	B.Tech	GNDEC Ludhiana
4	RAVNEET SINGH UBHI	1507865	B.Tech	GNDEC Ludhiana
5	PRABHSIMRAAN KAUR	1507856	B.Tech	GNDEC Ludhiana
6	RISHAB ARORA	1507866	B.Tech	GNDEC Ludhiana
7	SANCHI	1507868	B.Tech	GNDEC Ludhiana
8	SANJAY KUMAR	1507869	B.Tech	GNDEC Ludhiana
9	SHUBHAM SHARMA	1507871	B.Tech	GNDEC Ludhiana
10	SIMRAN MALHOTRA	1507873	B.Tech	GNDEC Ludhiana
11	SUKHDEEP KAUR	1507878	B.Tech	GNDEC Ludhiana
12	SWAPNIL VERMA	1507880	B.Tech	GNDEC Ludhiana
13	TARANPREET KAUR	1507881	B.Tech	GNDEC Ludhiana
14	VIKAS SINGH	1507883	B.Tech	GNDEC Ludhiana
15	ARTI KUMARI	1607040	B.Tech	GNDEC Ludhiana

16	BALJINDER SINGH	1607041	B.Tech	GNDEC Ludhiana
17	CHANPREET SINGH	1607042	B.Tech	GNDEC Ludhiana
18	DAMANJEET SINGH	1607043	B.Tech	GNDEC Ludhiana
19	GURDEEP SINGH	1607044	B.Tech	GNDEC Ludhiana
20	GURJUNG SINGH	1607046	B.Tech	GNDEC Ludhiana
21	HARKANWAL SINGH	1607049	B.Tech	GNDEC Ludhiana
22	HARLEEN KAUR	1607050	B.Tech	GNDEC Ludhiana
23	JASPREET SINGH	1607052	B.Tech	GNDEC Ludhiana
24	LOVEPREET KAUR	1607056	B.Tech	GNDEC Ludhiana
25	MANJINDER KAUR	1607057	B.Tech	GNDEC Ludhiana
26	NARPINDER SINGH	1607059	B.Tech	GNDEC Ludhiana
27	PRABHULEEN KAUR	1607062	B.Tech	GNDEC Ludhiana
28	RAHUL BHANDARI	1607064	B.Tech	GNDEC Ludhiana
29	ROBIN SHARMA	1607065	B.Tech	GNDEC Ludhiana
30	ROHIT VERMA	1607066	B.Tech	GNDEC Ludhiana
31	ROHIT SARPAL	1607067	B.Tech	GNDEC Ludhiana
32	SAHIL BABA TIWARI	1607068	B.Tech	GNDEC Ludhiana

33	SHAHDAT AKRAM CHOWDHURY	1607069	B.Tech	GNDEC Ludhiana
34	SHIVANI RANA	1607070	B.Tech	GNDEC Ludhiana
35	SHUBHAM GOYAL	1607071	B.Tech	GNDEC Ludhiana
36	SIMRANPAL	1607072	B.Tech	GNDEC Ludhiana
37	SUNAINA SAINI	1607073	B.Tech	GNDEC Ludhiana
38	PARGAT SINGH	1507853	B.Tech	GNDEC Ludhiana
39	PRABHDEEP SINGH	1507854	B.Tech	GNDEC Ludhiana
40	PRABHJOT SINGH	1507855	B.Tech	GNDEC Ludhiana
41	PREM KUMAR	1507857	B.Tech	GNDEC Ludhiana
42	JAGROOP SINGH	1607051	B.Tech	GNDEC Ludhiana
43	<b>RAHUL RANJAN</b>	1507859	B.Tech	GNDEC Ludhiana
44	PARUL SHARMA	1607060	B.Tech	GNDEC Ludhiana
45	AMRITPAL KAUR	1707222	M.Tech	GNDEC Ludhiana
46	BHUMIKA NARANG	1707223	M.Tech	GNDEC Ludhiana
47	GURVIR KAUR	1707225	M.Tech	GNDEC Ludhiana
48	JASDEEP SINGH	1707226	M.Tech	GNDEC Ludhiana
49	KIRANJEET KAUR	1707227	M.Tech	GNDEC Ludhiana



50	NAVLEEN KAUR	1707230	M.Tech	GNDEC Ludhiana
51	SAMEEKSHA MUNJAL	1707232	M.Tech	GNDEC Ludhiana
52	SUPRIYA SHARMA	1707234	M.Tech	GNDEC Ludhiana
53	SHUBHNEET KAUR SIDHU	1707233	M.Tech	GNDEC Ludhiana
54	KAMALPREET KAUR	1805801	M.Tech	GNDEC Ludhiana
55	DIKSHA PURI	1805800	M.Tech	GNDEC Ludhiana
56	ATAMJEET KAUR	1805798	M.Tech	GNDEC Ludhiana
57	TUFAIL FAROOQ	1707235	M.Tech	GNDEC Ludhiana
58	CHETAN JOT KAUR	1707224	M.Tech	GNDEC Ludhiana
59	RAJVIR KAUR	1707231	M.Tech	GNDEC Ludhiana
60	KSHITIJ V CHAWDHARY	1805802	M.Tech	GNDEC Ludhiana

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
DEPARTMENT OF PRODUCTION ENGINEERING

CIRCULAR

Ref. No. PE/45/29/8/6

Dated:- 15/11/18

HOD" and the faculty members of (CE, ME, PE, CSE, IT, EE, ECE)

GNDEC, Ludhiana.

Sir,

This is for your kind information that the department of Production Engineering is going to organize One week course from 19<sup>th</sup> -24<sup>th</sup> November, 2018 under QIP. You are requested to send your consent through proper channel to attend the same. Brochure for the same has been attached.

  
HOD (PE)

**Completed Registration form along with 1-page write-up (on reasons to attend this course) should be sent by Email to [singhrupinder@gndec.ac.in](mailto:singhrupinder@gndec.ac.in)**

**Dr. Rupinder Singh**  
**Course Coordinator**

**Pf. Manjot Singh Bedi**  
**Course Co-Coordinator**

Department of Production Engineering  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab, 141006

Please send single email with attachments as:

(a) the 1-page write-up and (b) scanned copy of the filled-in and signed form. The title of the email should be "QIP course on Tribological analysis of four dimensional printed engineering materials".

### **IMPORTANT DATES**

**Deadline for submitting Application: 14 Nov., 2018**  
**(Scanned copy via Email only)**

**Notification of Acceptance: 15 Nov., 2018**  
**Course Dates: 19 – 24 Nov., 2018**

- Incomplete application forms will not be entertained.

### **VENUE FOR COURSE**

Seminar Hall, Central Workshop, GNDEC, Ludhiana.

### **DATE & TIME FOR REGISTRATION**

Nov. 19, 2018, 9 AM at the venue for the course.

### **ELIGIBILITY**

Faculty members (Engg. discipline) of degree level engineering colleges recognized by AICTE/UGC/MHRD are eligible to attend the course. Research scholars and Industry/ R&D personal will also be considered subject to seats availability.

### **COURSE EVALUATION**

Successful participants would be awarded „Course Completion Certificate“.

### **REGISTRATION**

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a Cheque/Demand Draft of Rs. 1000/- in the name of "PRINCIPAL, GNDEC, Ludhiana".

The above amount will be refunded to the participant if he/she attends the course. In case a participant does not attend the course, the above amount will be forfeited. Shortlisting and confirmation of eligible candidates will be on a first come first served basis up to a maximum of 30 candidates.

### **TRANSPORT, BOARDING & LODGING**

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

### **CHIEF PATRON**

Dr. Sehijpal Singh

### **FACULTY COORDINATOR**

Dr. Jasmaninder Singh Grewal

### **COURSE COORDINATOR**

Dr. Rupinder Singh

### **COURSE Co-COORDINATOR**

Pf. Manjot Singh Bedi

### **GUEST FACULTY**

- Dr. O.P.Singh (BCET Gurdaspur)
- Dr. Sandeep Grover (YMCA Fbd.)
- Dr. Buta Singh Sidhu (MRRSPTU Bathinda)
- Dr. Harpreet Singh (IIT Ropar)
- Dr. Dilbag Singh (BCET Gurdaspur)
- Dr. Sanjeev Kumar (PEC Chandigarh)
- Dr. IPS Ahuja (Pbi. Univ. Patiala)
- Dr. G.S.Brar (NIT, U.K)
- Dr. Ajay Batish (TIET, Patiala)
- Dr. Dixit Garg (NIT, KKR)
- Dr. J.S.Dureja (Pbi. Univ. Patiala)

## **QIP Short Term Course**

**On**

## **TRIBOLOGICAL ANALYSIS OF FOUR DIMENSIONAL PRINTED ENGINEERING MATERIALS**

**Nov. 19 – 24, 2018**



**Department of Production Engineering**  
**Guru Nanak Dev Engineering College**  
**Ludhiana, Punjab – 141006**

**e-mail: [singhrupinder@gndec.ac.in](mailto:singhrupinder@gndec.ac.in)**  
**Phone: +91 98722-57575, +91 98035-66002**



## **ABOUT THE INSTITUTE**

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been straining persistently in the field of education by comprehending the need for up-liftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various Accredited graduate level B.Tech courses vis-a-vis Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Mechanical Engineering, Production Engineering, Information Technology, the institute imparts instruction in eleven Postgraduate M.Tech courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

## **ABOUT THE DEPARTMENT**

The first batch of M.Tech. (Production Engineering) started as part-time programme in 1980 followed by M.Tech. (Production Engineering) full-time programme in 1983 under Mechanical Engineering department. The department was renamed as Department of Production Engineering on January, 2009 and is functioning independently. At present it offers undergraduate and postgraduate courses in Production Engineering. The department has laboratory and workshop facilities with modern sophisticated equipment to carry out research in all areas related to Production Engineering. The faculty actively participates in sponsored research and consultancy work. The PG Prod. Engg. has been accredited by NBA (Tier-I) and all the courses offered by department are AICTE approved. The department is having very good pass percentage (in stipulated time) usually above 95% for UG/PG students. Since 2009, as independent department, Production Engineering is continuously maintaining strong International collaboration with outside world in form of joint research publications, editorial board memberships of reputed International journals.

## **OBJECTIVE OF THE COURSE**

- Tribological analysis of four dimensional printed thermoplastic composites
- Application of optimization techniques for four dimensional printed engineering materials
- Hand on experience for preparation of bio medical implants of thermoplastic composites by additive manufacturing
- Lab Testing of protective coatings, tribological analysis as per ASTM standards

## **COURSE CONTENTS**

1. Role of optimization for biomedical implants
2. Four dimensional printing of thermoplastic composites
3. Biomedical/Protective coatings and tribological analysis
4. Design of experiment (various tools for process optimization)
5. Case studies on dental/ortho implants.
6. Hand on experience for lab testing of implants.

## **COURSE BENEFICIARIES**

Faculty members pursuing Ph.D/ Research Scholars

## **BROAD SUBJECT AREA**

Manufacturing, Additive manufacturing

## **RELATED DISCIPLINES**

Production/Manufacturing/Mechanical/ Bio-medical/ Bio-technology/ CSE/IT

**NOTE:** For additional copies of the registration form, use a photocopy of this brochure or type in the format given. For further details:

<http://www.pe.gndec.ac.in>  
[www.rupindersinghresearch.com](http://www.rupindersinghresearch.com)

QIP Short Term Course  
on

# **TRIBOLOGICAL ANALYSIS OF FOUR DIMENSIONAL PRINTED ENGINEERING MATERIALS**

**November 19 – 24, 2018**

## **Registration Form**

Name (in block letters) : \_\_\_\_\_

Designation : \_\_\_\_\_

Organization : \_\_\_\_\_

Mailing Address : \_\_\_\_\_

Age : \_\_\_\_\_ Sex ( M/F): \_\_\_\_\_

Mobile : \_\_\_\_\_

Email : \_\_\_\_\_

Educational Qualifications:

Prior Exposure to such program: Yes / No

*Accommodation in Campus: YES / NO*

Signature of Applicant:

Sponsorship & Signature of Head of the College  
/ Institute (with date & seal).

*(Important: By signing above head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)*

**Form should be complete otherwise the application will be rejected**

Attendance of students for FDP on 'Trihological Analysis of 4-Dimensional Printed Engineering Materials'						
S. No.	Name of student	19/11/2018	20/11/2018	21/11/2018	22/11/2018	23/11/2018
1	Daljit Singh	Delguth	Delguth	Delguth	Delguth	Delguth
2	Gurheta Singh	GSul	GSul	GSul	GSul	GSul
3	Gurkanwal Singh Punia	GSul	GSul	GSul	GSul	GSul
4	Jagroop Singh Bhatti	ISBhatti	ISBhatti	ISBhatti	ISBhatti	ISBhatti
5	Jaskaran Singh Kang	JSKang	JSKang	JSKang	JSKang	JSKang
6	Rahul Bhatra	RBhatra	RBhatra	RBhatra	RBhatra	RBhatra
7	Saravjot Singh	SSingh	SSingh	SSingh	SSingh	SSingh

Photographs for the short term course on ‘Tribological Analysis of Four dimensional Printed Engineering Materials’









# Guru Nanak Dev Engineering College, Ludhiana

AN AUTONOMOUS COLLEGE u/s [2(F) & 12(B)] OF UGC ACT-1956

Department of Production Engineering

QIP short term course

Certificate of Participation

This is to certify that Mr. Gurcharan Singh from GYNDEC, Ludhiana participated in the 5 days course in "Tribological Analysis of Four Dimensional Printed Engineering Materials" from November 19-24, 2018.

Course Coordinator

*Raj*

Faculty Coordinator & Head of Dept.

*S. Grewal*

QIP Coordinator

*Raj*

No. GNP/PE/52/2018







# Guru Nanak Dev Engineering College, Ludhiana

AN AUTONOMOUS COLLEGE u/s [2(f) & 12(B)] OF UGC ACT-1956

## Department of Production Engineering

### QIP short term course

### Certificate of Participation

This is to certify that Mr. Jaskaran Singh From GYNDEC, Ludhiana participated in the 5 days course in "Tribological Analysis of Four Dimensional Printed Engineering Materials" from November 19-24, 2018.

Course Coordinator

Faculty Coordinator & Head of Dept.

No. 018/PE/81/2018

QIP Coordinator





## **GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**

An Autonomous College u/s 2(f) and 12(B) of UGC Act 1956

### **Department of Production Engineering**

#### **Consolidated report on Faculty Development Program on 'Tribological Analysis on Four Dimensional Printed Engineering Materials'.**

The faculty development program sponsored by QIP on 'Tribological Analysis on Four Dimensional Printed Engineering Materials' was organized by the Production Engineering department from 9 – 13 October, 2018. FDP was held under the guidance of Principal GNDEC, Ludhiana and HOD Production Engineering, the program was designed for industrialist, medical field representatives, researchers and faculty of Various fields of Engineering, as it was an interdisciplinary course.

The experts from the various reputed institutes were present to deliver lectures and share their experiences in Four dimensional printing of engineering materials. More than 40 participants from various institutions had attended the program to take benefits of expert talks and enhanced their knowledge in the field of four dimensional printing.

#### **Objectives of the program:**

1. Material development for 4D printing
2. Hands on experience for preparation of 4D print by additive manufacturing.
3. Tribological analysis by using erosion and wear studies.
4. Lab testing of functional prototypes as per ASTM standards.

#### **Sessions of the program:**

- Session I: 09:15 am – 10:45 am  
Tea break (10:45 am – 11:00 am)
- Session II: 11:00 am – 12:30 pm  
Lunch break (12:30 pm – 01:15 pm)
- Session III: 01:15 pm – 02:45 pm  
Tea break (02:45 pm – 03:00 pm)

Session IV: 03:00 pm – 04:30 pm

**Course contents:**

- Role of 4D printed functional prototypes.
- Additive manufacturing for 4D printed components.
- Tribological analysis.
- Design of experiment (various tools for process optimization)
- Case studies on dental/ortho 4D materials.
- Practice session for lab testing as per ASTM standards.

**Speakers:**

Dr. Buta Singh (MRS Punjab Techninal University, Bathinda)

Dr. Satya Prakash (IIT Roorkee)

Dr. Bhupinder Singh Bhoop (PU, Chandigarh)

Dr. IPS Ahuja (Punjabi University, Patiala)

Dr. JS NS Vyas (IIT Kanpur)

Dr. Sanjeev Kumar (PEC, Chandigarh)

Dr. Sandeep Grover (YMCA, Faridabad)

Dr. Harpreet Singh (IIT Ropar)

Dr. Rupinder Singh (GNDEC, Ludhiana)

Dr. JS Grewal (GNDEC Ludhiana)

**Organizing Committee:**

Dr. JS Grewal (Patron)

Dr. Rupinder Singh (Course Coordinator)

Er. Manjot Singh Bedi


Dr. Harpuneet Singh

Er. Jagdeep Singh

Er. Kanwalpreet Sahni

Er. Arshpreet Kaur

Er. Gulraj Singh  
Er. Gurleen Singh

  
HOD PE



Scanned copy of duly Completed Registration Form along with 1-page write-up (reasons to attend this course) and DD/Cheque should be sent by Email to [pkbhambri@gndec.ac.in](mailto:pkbhambri@gndec.ac.in) or posted to

**Dr. Pankaj Bhambri,**  
Course Coordinator,  
Department of Information Technology,  
Guru Nanak Dev Engineering College,  
Ludhiana, Punjab, 141006

Please send a **single email** with attachments as:

(a) 1-page write-up (b) Scanned copy of the filled-in and signed form. (c) Scanned copy of DD/Cheque. The title of the email should be “**QIP STC on AI, Big Data and HPC Aligned Applications-A Modern Approach of Computing**”.

**Note: Bring original Registration Form and DD/Cheque at the Time of Registration.**

#### IMPORTANT DATES

Last Date for Receipt of Application: 24<sup>th</sup> Dec., 2018  
Intimation of Acceptance: 27<sup>th</sup> Dec., 2018  
Short Term Course Dates: Dec. 31<sup>st</sup> 2018 – Jan. 04<sup>th</sup> 2019

Incomplete application forms will not be entertained.

#### VENUE FOR COURSE

Consultancy Hall, GNDEC, Ludhiana.

#### TIME & DATE FOR REGISTRATION

09:00 a.m. of Dec. 31<sup>st</sup>, 2018 at the venue of the course.

#### ELIGIBILITY

Faculty/ Research scholars (Engineering/ Science/ Management discipline) of degree level engineering colleges recognized by AICTE/UGC/MHRD are eligible to attend the course. Related Research scholars/personnel from R&D/ industrial organizations will also be considered subject to availability of seats.

#### COURSE EVALUATION

Participants would be awarded ‘**Course Completion Certificate**’ on attending the course as per QIP norms.

#### REGISTRATION

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a Cheque/Demand Draft of Rs. 1000/- (One thousand) in the name of “PRINCIPAL, GNDEC, Ludhiana” as a caution fee. This amount will be refunded to the participant if he/she attends the course. In case a participant does not attend the course, the above amount will be forfeited. Short listing and confirmation of eligible candidates will be done on a first come first basis (on receipt of registration form through email).

#### TRANSPORT, BOARDING & LODGING

Participants are entitled for to and fro 2<sup>nd</sup> class (Sleeper Class or AC) railway/bus fare by the shortest route from their organization to GNDEC, Ludhiana as per QIP norms. Accommodation will be provided in the students Hostels or Guest House on sharing basis. DA will not be permissible.

#### CHIEF PATRON

Dr. Sehijpal Singh, Principal

#### FACULTY COORDINATOR

Dr. Kiran Jyoti, Assistant Prof. & HOD (IT)  
[it@gndec.ac.in](mailto:it@gndec.ac.in); +91 98722-24422

#### COURSE COORDINATOR

Dr. Pankaj Bhambri, Assistant Prof. (IT)  
[pkbhambri@gndec.ac.in](mailto:pkbhambri@gndec.ac.in); +91 98148-28414

#### ORGANIZING COMMITTEE

Faculty and Staff, Department of Information Technology

#### RESOURCE PERSONS

- Dr. S.S. Anand (Sabudh Foundation, New Delhi)
- Dr. S.S. Jha (IIT, Ropar)
- Dr. Geeta Sikka (NIT, Jalandhar)
- Dr. Kuldeep Kumar (NIT, Jalandhar)
- Dr. Nirmal Kaur (UIET, Chandigarh)
- Er. Vipin Gupta (U.Net Solutions, Moga)
- Er. Amit Deoger (NITTTR, Chandigarh)
- Er. Navjot Singh (AlertEnterprise, Chandigarh)
- and many more...

## QIP Short Term Course

on

### **AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing**

**Dec. 31<sup>st</sup> 2018 – Jan. 04<sup>th</sup> 2019**



***Organized by***

**Department of Information Technology  
Guru Nanak Dev Engineering College  
Ludhiana, Punjab – 141006**

## **ABOUT THE INSTITUTE & DEPARTMENT**

Guru Nanak Dev Engineering College, Ludhiana (An Autonomous College under UGC Act), established in 1956, oldest and premier institute of Punjab, is providing education in the field of engineering by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi in 2012. This college has the privilege of starting Ph.D. degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various Accredited graduate level B.Tech. courses vis-a-vis Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Mechanical Engineering, Production Engineering, Information Technology; the institute imparts instruction in eleven Postgraduate M.Tech. courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D. degree program.

Department of Information Technology was established in 2001. Since its inception, the department has contributed in a big way to the society by providing technical manpower for various fields in India and abroad. Around 1000 graduates and 100 post graduates from the department are settled in very good positions all over the Globe. At present, the department is proud to get best merit students in the region. The faculty of the department continues to provide new frontiers of technical knowledge to the students by imparting quality education and research. The UG course is NBA accredited and is keeping pace with the latest developments in engineering education.

## **ABOUT THE COURSE**

This Short Term Course will provide opportunity to understand and apply knowledge to complex computational challenges of modern time like scaling computational resources and rapid data growth. Developing key insight about the digital disruption and shift in the computation paradigm will also be the focus area. Broad subject areas for this course are Machine Learning, Natural Language Processing, Data Analytics, Parallel and Distributed Computing. This course will create a platform for industry and academia luminaries to share best practices and techniques to help realize the potential of these technologies.

### **Course Objectives:**

- To expose the faculty/ research scholars/ industry based persons in emerging technologies in the area of AI, Bigdata and HPC aligned applications.
- To provide the practical foundation level training that enables insight into digital disruption and accelerating machine learning on AI through performance libraries and platforms.

### **Course Contents:**

1. AI, Bigdata and HPC Aligned Applications
2. Exposure to Analysis and Interpretation of Data
3. AI, Bigdata and HPC Research Methods
4. Exploration of Contemporary Research on Teaching and Learning
5. Real Life Implementation Scenarios
6. Case studies
7. Lab sessions

### **Course Timings:**

#### **Session wise Schedule (Dec. 31<sup>st</sup> 2018 – Jan. 04<sup>th</sup> 2019)**

<b>Session I</b>	<b>09:00 a.m. to 10:30 a.m.</b> Tea Break (10:30 a.m. to 10:45 a.m.)
<b>Session II</b>	<b>10:45 a.m. to 12:15 p.m.</b> Lunch (12:15 p.m. to 01:00 p.m.)
<b>Session III</b>	<b>01:00 p.m. to 02:30 p.m.</b> Tea Break (02:30 p.m. to 02:45 p.m.)
<b>Session IV</b>	<b>02:45 p.m. to 04:15 p.m.</b>

### **COURSE BENEFICIARIES**

Faculty/ Research Scholars involved in Teaching/ Research/ Consultancy work

### **BROAD SUBJECT AREA**

Information Technology, Computer Science & Engineering

### **RELATED DISCIPLINES**

Computer Applications, CS, ECE & EE etc.

**NOTE:** For additional copies of the registration form, use a photocopy of this brochure or type in the format given. For further details: <https://it.qndec.ac.in/>

## **QIP Short Term Course**

on

## **AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing** **Dec. 31<sup>st</sup> 2018 – Jan. 04<sup>th</sup> 2019**

### **Registration Form**

Name (in block letters): \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Age: \_\_\_\_\_ Sex (M/F): \_\_\_\_\_

D.D./Cheque No. \_\_\_\_\_ Date \_\_\_\_\_

Bank Name: \_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Educational Qualifications: \_\_\_\_\_

Prior Exposure to such program: Yes / No

Accommodation Required in Campus: Yes/ No

Signature of Applicant: \_\_\_\_\_

Sponsorship & Signature of Head of the College / Institute (with date & seal).

**(Important: By signing above head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)**

**Form should be complete otherwise the application will be rejected**

## COLLEGE NOTES

### Seminar on artificial intelligence

**Ludhiana:** A five-day hands-on practice session in the form of short term course (STC) commenced at Guru Nanak Dev Engineering College, Ludhiana. This quality improvement programme (QIP) STC titled "Artificial Intelligence (AI), Big Data and HPC Aligned Applications - A Modern Approach of Computing" was inaugurated in consultancy seminar hall. Dr Sukhwinder Singh, director, Computer Centre, Panjab University, Chandigarh, was the chief guest and a keynote speaker. Dr Sukhwinder pointed out various innovative ideas implemented at industry and government level related to AI and high performance computing. Ramandeep Singh Suri, who was the guest of honour, elaborated role of social media and cloud computing. Suri shared his experience and motivated the audience. Dr Kuldeep Kumar from Dr BR Ambedkar National Institute of Technology, Jalandhar, discussed topics titled "Practical approach to research methodologies and Industry-academic research trends in computing". He demonstrated the contents by sharing live examples. Dr Kiran Jyoti, HoD, and faculty coordinator shared her views on social network analysis and big data deluge.







**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**  
**Department of Information Technology**

No. IT/09/1417

Dated: 21<sup>st</sup> November 2018

**QIP Coordinator,**  
Guru Nanak Dev Engineering College,  
Ludhiana

Sir,

Vide reference to your meeting held on dated 30<sup>th</sup> August 2018 for scrutiny of proposals of STTPs under QIP; Information Technology Dept. is allowed to conduct the Programme on title "AI, Bigdata and HPC Aligned Applications – A Modern Approach of Computing". You are requested to allow for conducting this programme during 31<sup>st</sup> December 2018 – 04<sup>th</sup> January 2019 at Consultancy Hall of the Institute.

*[Signature]*  
21.11.2018  
Head of Department,

Information Technology Dept.

CC: Office Copy

*Principal for kind approval P/s.*

*Mech Engg Consultancy from 4 Dec - 8 Dec*  
*7 Jan - 11 Jan*

*RS*

*Noted/seen/Circulated*  
*[Signature]*  
*27/11/18*

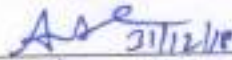


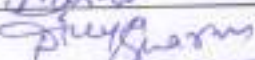
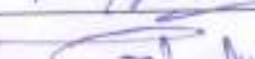


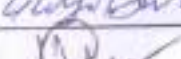
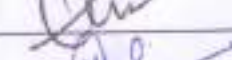
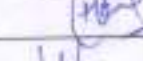

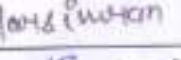


*EE*

*May be allowed*  
*RS*

*Allowed / Not Allowed*  
*SA*  
*Principal*







**Attendance Sheet (QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**  
**Registration for the Course on Dated 31.12.2018**

S. No.	Dr./ Er/ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
1	Dr.	Amit Kamra	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
2	Er.	Birpal Kaur	Assistant Professor	GNA University, Phagwara	
3	Er.	Dinesh Anand	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
4	Er.	Divya Sharma	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
5	Er.	Gitanjali	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
6	Er.	Gurjit Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
7	Er.	Gurjot Singh	Assistant Professor	Malwa College, Samrala	
8	Er.	Hanit Karwal	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
9	Er.	Harjot Kaur Gill	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
10	Er.	Harpeet Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
11	Er.	Harsimran Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
12	Er.	Jagdeep Singh	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
13	Er.	Jasmine Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
14	Dr.	K.S. Mann	Professor	Guru Nanak Dev Engineering College, Ludhiana	



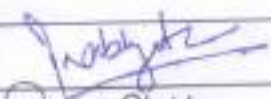
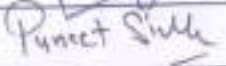
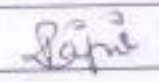

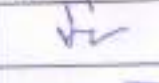


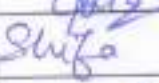
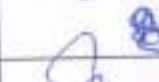


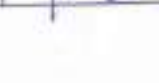


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Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**

**Registration for the Course on Dated 31.12.2018**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
15	Dr.	Kamaljit Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
16	Er.	Kanwalpreet Singh Sidhu	Assistant Professor	Bhutta College of Engineering and Technology, Ludhiana	
17	Er.	Kapil Kumar	Assistant Professor	Lingaya's Vidyapeeth, Faridabad	 31/12/18
18	Er.	Karamjit Singh Gill	Assistant Professor	Bhutta College of Engineering and Technology, Ludhiana	
19	Mr.	Karanbir Singh	CEO	Up2Mark Technologies Pvt. Ltd.	 31/12/18
20	Dr.	Kiran Jyoti	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
21	Er.	Mandeep Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	 31/12/18
22	Er.	Mandeep Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
23	Er.	Navpreet Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
24	Er.	Nidhi Sharma	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
25	Er.	Nitish Sharma	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
26	Dr.	Pankaj Bhambri	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
27	Ms.	Parminder Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	 31/12/18
28	Er.	Prabhjot Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	

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S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
29	Er.	Prabhjot Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
30	Mr.	Puneet Singh	Director	Up2Mark Technologies Pvt. Ltd.	
31	Er.	Rajni Puri	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	
32	Er.	Ravinder Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
33	Er.	Rupinder Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
34	Er.	Sachin Bagga	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
35	Er.	Samreet Kaur Gosal	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
36	Er.	Sandeep Kumar Singla	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	 31.12.18
37	Er.	Sartinderpal Singh	AP (CP)/ CP, Computer Centre	Guru Nanak Dev Engineering College, Ludhiana	
38	Er.	Shifa Grover	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
39	Er.	Shivani Arora Abrol	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
40	Er.	Sidharth Jain	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
41	Dr.	Sumeet Kaur Sehra	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
42	Ms.	Sunanda Lal	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	



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**Registration for the Course on Dated 31.12.2018**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
43	Er.	Sunil Aggarwal	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
44	Er.	Swaranjit Singh	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	Swaranjit Singh
45	Ms.	Taranpreet Kaur	Assistant Professor	Mata Gujri College, Fatehgarh Sahib	M. Kaur 31/12/18
46	Dr.	V.J. Rai	Principal	Bhutta College of Engineering and Technology, Ludhiana	
47	Dr.	Vikas Singla	Assistant Professor	Malout Institute of Management & Information Technology, Malout	Vikas Singla
48	Er.	Yadvir Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	Yadvir Kaur



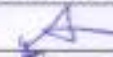




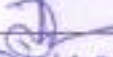


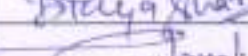
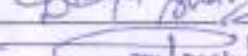





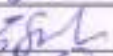




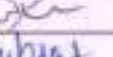
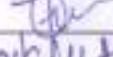
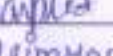
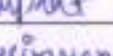
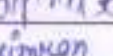





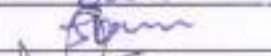
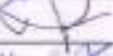
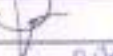
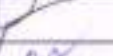
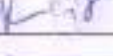

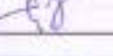
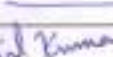
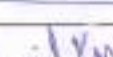

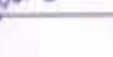
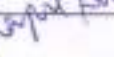
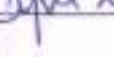








## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 31st December 2018 (Monday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 1 (Signatures)		
				Session-1.1 (11-12:30pm)	Session-1.2 (1:15-2:45pm)	Session-1.3 (3-4:30pm)
1	Dr.	Amit Kamra	Assistant Professor			
2	Er.	Birpal Kaur	Assistant Professor			
3	Er.	Dinesh Anand	Assistant Professor			
4	Er.	Divya Sharma	Research Scholar			
5	Er.	Gitanjali	Research Scholar			
6	Er.	Gurjit Kaur	Assistant Professor			
7	Er.	Gurjot Singh	Assistant Professor			
8	Er.	Hanit Karwal	Assistant Professor			
9	Er.	Harjot Kaur Gill	Assistant Professor			
10	Er.	Harpeet Kaur	Assistant Professor			
11	Er.	Harsimran Kaur	Research Scholar			
12	Er.	Jagdeep Singh	Assistant Professor			
13	Er.	Jasmine Kaur	Assistant Professor			
14	Dr.	K.S. Mann	Professor			
15	Dr.	Kamaljit Kaur	Assistant Professor			
16	Er.	Kanwalpreet Singh Sidhu	Assistant Professor			
17	Er.	Kapil Kumar	Assistant Professor			

## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 31st December 2018 (Monday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 1 (Signatures)		
				Session-1.1 (11-12:30pm)	Session-1.2 (1:15-2:45pm)	Session-1.3 (3-4:30pm)
18	Er.	Karamjit Singh Gill	Assistant Professor			
19	Mr.	Karanbir Singh	CEO	Karanbir Singh	Karanbir Singh	Karanbir Singh
20	Dr.	Kiran Jyoti	Assistant Professor			
21	Er.	Mandeep Kaur	Assistant Professor	NK	NK	NK
22	Er.	Mandeep Kaur	Research Scholar	Mandeep Kaur	Mandeep Kaur	Mandeep Kaur
23	Er.	Navpreet Kaur	Research Scholar	Navpreet Kaur	Navpreet Kaur	Navpreet Kaur
24	Er.	Nidhi Sharma	Assistant Professor	Nidhi Sharma	Nidhi Sharma	Nidhi Sharma
25	Er.	Nitish Sharma	Research Scholar			
26	Dr.	Pankaj Bhambri	Assistant Professor	Pankaj Bhambri	Pankaj Bhambri	Pankaj Bhambri
27	Ms.	Parminder Kaur	Assistant Professor	Parminder Kaur	Parminder Kaur	Parminder Kaur
28	Er.	Prabhjot Kaur	Research Scholar	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur
29	Er.	Prabhjot Kaur	Assistant Professor	Prabhjot Kaur	Prabhjot Kaur	Prabhjot Kaur
30	Mr.	Puneet Singh	Director	Puneet Singh	Puneet Singh	Puneet Singh
31	Er.	Rajni Puri	Assistant Professor	Rajni Puri	Rajni Puri	Rajni Puri
32	Er.	Ravinder Kaur	Assistant Professor			
33	Er.	Rupinder Kaur	Assistant Professor	Rupinder Kaur	Rupinder Kaur	Rupinder Kaur
34	Er.	Sachin Bagga	Assistant Professor	Sachin Bagga	Sachin Bagga	Sachin Bagga
35	Er.	Samreet Kaur Gosal	Assistant Professor			

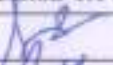

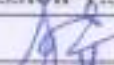


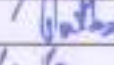
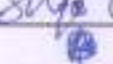
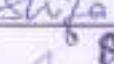
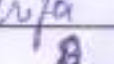
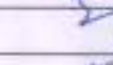
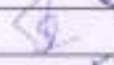
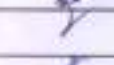
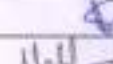
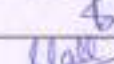
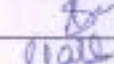
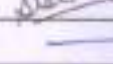
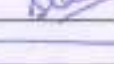
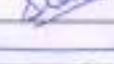

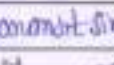
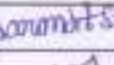



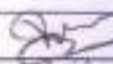

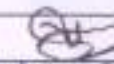

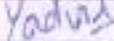
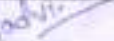











## Attendance Sheet

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37	Er.	Sartinderpal Singh	AP (CPV CP, Computer Centre)			
38	Er.	Shifa Grover	Research Scholar			
39	Er.	Shivani Arora Abrol	Assistant Professor			
40	Er.	Sidharth Jain	Assistant Professor			
41	Dr.	Sumeet Kaur Sehra	Assistant Professor			
42	Ms.	Sunanda Lal	Assistant Professor			
43	Er.	Sunil Aggarwal	Research Scholar			
44	Er.	Swaranjit Singh	Research Scholar			
45	Ms.	Taranpreet Kaur	Assistant Professor			
46	Dr.	V.J. Rai	Principal			
47	Dr.	Vikas Singla	Assistant Professor			
48	Er.	Yadvir Kaur	Assistant Professor			



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 01st January 2019 (Tuesday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 2 (Signatures)			
				Session-2.1 (09.00-10:30am)	Session-2.2 (10.45-12:15pm)	Session-2.3 (01.00-02:30pm)	Session-2.4 (02.45-04:15pm)
1	Dr.	Amit Kamra	Assistant Professor				
2	Er.	Birpal Kaur	Assistant Professor				
3	Er.	Dinesh Anand	Assistant Professor				
4	Er.	Divya Sharma	Research Scholar				
5	Er.	Gitanjali	Research Scholar				
6	Er.	Gurjit Kaur	Assistant Professor				
7	Er.	Gurjot Singh	Assistant Professor				
8	Er.	Hanit Kaur	Assistant Professor				
9	Er.	Harjot Kaur Gill	Assistant Professor				
10	Er.	Harpreet Kaur	Assistant Professor				
11	Er.	Harsimran Kaur	Research Scholar				
12	Er.	Jagdeep Singh	Assistant Professor				
13	Er.	Jasmine Kaur	Assistant Professor				
14	Dr.	K.S. Mann	Professor				
15	Dr.	Kamaljit Kaur	Assistant Professor				
16	Er.	Kapil Kumar	Assistant Professor				

Kapil Kumar  
01/01/2019

Kapil Kumar

Kapil Kumar

Kapil Kumar

22

## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 01st January 2019 (Tuesday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 2 (Signatures)			
				Session-2.1 (09.00-10:30am)	Session-2.2 (10.45-12:15pm)	Session-2.3 (01.00-02:30pm)	Session-2.4 (02.45-04:15pm)
17	Mr.	Karanbir Singh	CEO				
18	Dr.	Kiran Jyoti	Assistant Professor				
19	Er.	Mandeep Kaur	Assistant Professor				
20	Er.	Mandeep Kaur	Research Scholar				
21	Er.	Navpreet Kaur	Research Scholar				
22	Er.	Nidhi Sharma	Assistant Professor				
23	Dr.	Pankaj Bhambri	Assistant Professor				
24	Ms.	Parminder Kaur	Assistant Professor				
25	Er.	Prabhjot Kaur	Research Scholar				
26	Er.	Prabhjot Kaur	Assistant Professor				
27	Mr.	Puneet Singh	Director				
28	Er.	Rajni Puri	Assistant Professor				
29	Er.	Rupinder Kaur	Assistant Professor				
30	Er.	Sachin Bagga	Assistant Professor				
31	Er.	Sandeep Kumar Singla	Assistant Professor				
32	Er.	Sartinderpal Singh	AP (CPV) CP, Computer Centre				
33	Er.	Shifa Grover	Research Scholar				




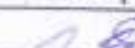
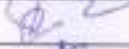
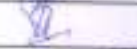


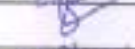

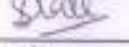




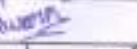
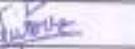
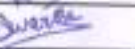
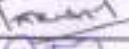

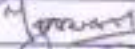
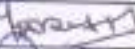




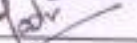


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## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 01st January 2019 (Tuesday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 2 (Signatures)			
				Session-2.1 (09.00-10:30am)	Session-2.2 (10.45-12:15pm)	Session-2.3 (01.00-02:30pm)	Session-2.4 (02.45-04:15pm)
34	Er.	Shivani Arora Abrol	Assistant Professor				
35	Er.	Sidharth Jain	Assistant Professor				
36	Dr.	Sumeet Kaur Sehra	Assistant Professor				
37	Ms.	Sunanda Lal	Assistant Professor				
38	Er.	Swaranjit Singh	Research Scholar				
39	Ms.	Taranpreet Kaur	Assistant Professor				
40	Dr.	Vikas Singla	Assistant Professor				
41	Er.	Yadvir Kaur	Assistant Professor				



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 02nd January 2019 (Wednesday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.			Designation	Day 3 (Signatures)			
				Session-3.1 (09.00-10:30am)	Session-3.2 (10.45-12:15pm)	Session-3.3 (01.00-02:30pm)	Session-3.4 (02.45-04:15pm)
1	Dr.	Amit Kamra	Assistant Professor				
2	Er.	Birpal Kaur	Assistant Professor				
3	Er.	Dinesh Anand	Assistant Professor				
4	Er.	Divya Sharma	Research Scholar				
5	Er.	Gitanjali	Research Scholar				
6	Er.	Gurjit Kaur	Assistant Professor				
7	Er.	Gurjot Singh	Assistant Professor				
8	Er.	Hanit Kaur	Assistant Professor				
9	Er.	Harjot Kaur Gill	Assistant Professor				
10	Er.	Harpreet Kaur	Assistant Professor				
11	Er.	Harsimran Kaur	Research Scholar				
12	Er.	Jagdeep Singh	Assistant Professor				
13	Er.	Jasmine Kaur	Assistant Professor				
14	Dr.	K.S. Mann	Professor				
15	Dr.	Kamaljit Kaur	Assistant Professor				
16	Er.	Kapil Kumar	Assistant Professor				



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 02nd January 2019 (Wednesday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 3 (Signatures)			
				Session-3.1 (09.00-10:30am)	Session-3.2 (10.45-12:15pm)	Session-3.3 (01.00-02:30pm)	Session-3.4 (02.45-04:15pm)
17	Mr.	Karanbir Singh	CEO				
18	Dr.	Kiran Jyoti	Assistant Professor				
19	Er.	Mandeep Kaur	Assistant Professor				
20	Er.	Mandeep Kaur	Research Scholar				
21	Er.	Navpreet Kaur	Research Scholar				
22	Er.	Nidhi Sharma	Assistant Professor				
23	Dr.	Pankaj Bhambri	Assistant Professor				
24	Ms.	Parminder Kaur	Assistant Professor				
25	Er.	Prabhjot Kaur	Research Scholar				
26	Er.	Prabhjot Kaur	Assistant Professor				
27	Mr.	Puneet Singh	Director				
28	Er.	Rajni Puri	Assistant Professor				
29	Er.	Rupinder Kaur	Assistant Professor				
30	Er.	Sachin Bagga	Assistant Professor				
31	Er.	Sandeep Kumar Singla	Assistant Professor				
32	Er.	Sartinderpal Singh	AP (CP)/ CP, Computer Centre				
33	Er.	Shifa Grover	Research Scholar				





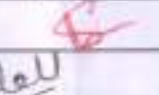

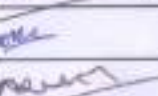
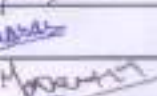
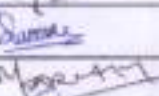



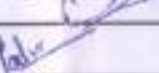


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## Attendance Sheet

**Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing**

**Date: 02nd January 2019 (Wednesday)**

**Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana**

S.No.		Name of the Participant	Designation	Day 3 (Signatures)			
				Session-3.1 (09.00-10:30am)	Session-3.2 (10.45-12:15pm)	Session-3.3 (01.00-02:30pm)	Session-3.4 (02.45-04:15pm)
34	Er.	Shivani Arora Abrol	Assistant Professor				
35	Er.	Sidharth Jain	Assistant Professor				
36	Dr.	Sumeet Kaur Sehra	Assistant Professor				
37	Ms.	Sunanda Lal	Assistant Professor				
38	Er.	Swaranjit Singh	Research Scholar				
39	Ms.	Taranpreet Kaur	Assistant Professor				
40	Dr.	Vikas Singla	Assistant Professor				
41	Er.	Yadvir Kaur	Assistant Professor				













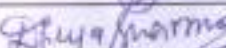



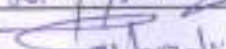
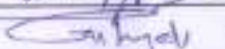
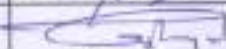
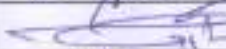
















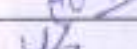



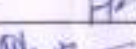


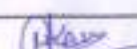








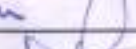
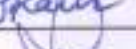


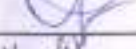
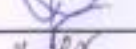


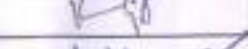
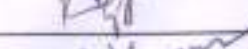
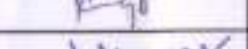



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 03rd January 2019 (Thursday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 4 (Signatures)			
				Session-4.1 (09.00-10:30am)	Session-4.2 (10.45-12:15pm)	Session-4.3 (01.00-02:30pm)	Session-4.4 (02.45-04:15pm)
1	Dr.	Amit Kamra	Assistant Professor				
2	Er.	Birpal Kaur	Assistant Professor				
3	Er.	Dinesh Anand	Assistant Professor				
4	Er.	Divya Sharma	Research Scholar				
5	Er.	Gitanjali	Research Scholar				
6	Er.	Gurjit Kaur	Assistant Professor				
7	Er.	Gurjot Singh	Assistant Professor				
8	Er.	Hanit Kaur	Assistant Professor				
9	Er.	Harjot Kaur Gill	Assistant Professor				
10	Er.	Harpreet Kaur	Assistant Professor				
11	Er.	Harsimran Kaur	Research Scholar				
12	Er.	Jagdeep Singh	Assistant Professor				
13	Er.	Jasmine Kaur	Assistant Professor				
14	Dr.	K.S. Mann	Professor				
15	Dr.	Kamaljit Kaur	Assistant Professor				
16	Er.	Kapil Kumar	Assistant Professor				



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 03rd January 2019 (Thursday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 4 (Signatures)			
				Session-4.1	Session-4.2	Session-4.3	Session-4.4
18	Dr.	Kiran Jyoti	Assistant Professor				
19	Er.	Mandeep Kaur	Assistant Professor	MK	MK	MK	MK
20	Er.	Mandeep Kaur	Research Scholar	MK	MK	MK	MK
21	Er.	Navpreet Kaur	Research Scholar				
22	Er.	Nidhi Sharma	Assistant Professor				
23	Dr.	Pankaj Bhambri	Assistant Professor				
24	Ms.	Parminder Kaur	Assistant Professor				
25	Er.	Prabhjot Kaur	Research Scholar				
26	Er.	Prabhjot Kaur	Assistant Professor				
27	Mr.	Puneet Singh	Director				
28	Er.	Rajni Puri	Assistant Professor				
29	Er.	Rupinder Kaur	Assistant Professor				
30	Er.	Sachin Bagga	Assistant Professor				
31	Er.	Sandeep Kumar Singla	Assistant Professor				
32	Er.	Sartinderpal Singh	AP (CP)/ CP, Computer Centre				
33	Er.	Shifa Grover	Research Scholar				

## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 03rd January 2019 (Thursday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 4 (Signatures)			
				Session-4.1	Session-4.2	Session-4.3	Session-4.4
35	Er.	Sidharth Jain	Assistant Professor				
36	Dr.	Sumeet Kaur Sehra	Assistant Professor				
37	Ms.	Sunanda Lal	Assistant Professor				
38	Er.	Swaranjit Singh	Research Scholar				
39	Ms.	Taranpreet Kaur	Assistant Professor				
40	Dr.	Vikas Singla	Assistant Professor				
41	Er.	Yadvir Kaur	Assistant Professor				
42	Ms.	Shivani A Ahrol	A-P				



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 04th January 2019 (Friday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 5 (Signatures)			
				Session-5.1 (09.00-10:30am)	Session-5.2 (10.45-12:15pm)	Session-5.3 (01.00-02:30pm)	Session-5.4 (02.45-04:15pm)
1	Dr.	Amit Kamra	Assistant Professor				
2	Er.	Birpal Kaur	Assistant Professor				
3	Er.	Dinesh Anand	Assistant Professor				
4	Er.	Divya Sharma	Research Scholar				
5	Er.	Gitanjali	Research Scholar				
6	Er.	Gurjit Kaur	Assistant Professor				
7	Er.	Gurjot Singh	Assistant Professor				
8	Er.	Hanit Kaur	Assistant Professor				
9	Er.	Harjot Kaur Gill	Assistant Professor				
10	Er.	Harpreet Kaur	Assistant Professor				
11	Er.	Harsimran Kaur	Research Scholar				
12	Er.	Jagdeep Singh	Assistant Professor				
13	Er.	Jasmine Kaur	Assistant Professor				
14	Dr.	K.S. Mann	Professor				
15	Dr.	Kamaljit Kaur	Assistant Professor				
16	Er.	Kapil Kumar	Assistant Professor				

## Attendance Sheet

**Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing**

**Date: 04th January 2019 (Friday)**

**Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana**

S.No.		Name of the Participant	Designation	Day 5 (Signatures)			
				Session-5.1	Session-5.2	Session-5.3	Session-5.4
18	Dr.	Kiran Jyoti	Assistant Professor				
19	Er.	Mandeep Kaur	Assistant Professor				
20	Er.	Mandeep Kaur	Research Scholar				
21	Er.	Navpreet Kaur	Research Scholar				
22	Er.	Nidhi Sharma	Assistant Professor				
23	Dr.	Pankaj Bhambri	Assistant Professor				
24	Ms.	Parminder Kaur	Assistant Professor				
25	Er.	Prabhjot Kaur	Research Scholar				
26	Er.	Prabhjot Kaur	Assistant Professor				
27	Mr.	Puneet Singh	Director				
28	Er.	Rajni Puri	Assistant Professor				
29	Er.	Rupinder Kaur	Assistant Professor				
30	Er.	Sachin Bagga	Assistant Professor				
31	Er.	Sandeep Kumar Singla	Assistant Professor				
32	Er.	Sartinderpal Singh	AP (CP)/ CP, Computer Centre				
33	Er.	Shifa Grover	Research Scholar				



## Attendance Sheet

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

Date: 04th January 2019 (Friday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	Day 5 (Signatures)			
				Session-5.1	Session-5.2	Session-5.3	Session-5.4
35	Er.	Sidharth Jain	Assistant Professor				
36	Dr.	Sumeet Kaur Sehra	Assistant Professor				
37	Ms.	Sunanda Lal	Assistant Professor				
38	Er.	Swaranjit Singh	Research Scholar				
39	Ms.	Taranpreet Kaur	Assistant Professor				
40	Dr.	Vikas Singla	Assistant Professor				
41	Er.	Yadvir Kaur	Assistant Professor				
42	Ms.	Shivani A Ahluwalia	A.P.				



## Cosolidated Attendance Sheet (QIP-STC)

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

31st December 2018 (Monday) - 04th January 2019 (Friday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.		Name of the Participant	Designation	31.12.2018	1.1.2019	2.1.2019	3.1.2019	4.1.2019
1	Dr.	Amit Kamra	Assistant Professor	A	A	A	A	A
2	Er.	Birpal Kaur	Assistant Professor	B	B	B	B	B
3	Er.	Dinesh Anand	Assistant Professor	D	D	D	D	D
4	Er.	Divya Sharma	Research Scholar	Divya Sharma	Divya Sharma	Divya Sharma	Divya Sharma	Divya Sharma
5	Er.	Gitanjali	Research Scholar	Gitanjali	Gitanjali	Gitanjali	Gitanjali	Gitanjali
6	Er.	Gurjit Kaur	Assistant Professor	GKaur	GKaur	GKaur	GKaur	GKaur
7	Er.	Gurjot Singh	Assistant Professor	Gurjot	Gurjot	Gurjot	Gurjot	Gurjot
8	Er.	Hanit Kaur	Assistant Professor	HK	HK	HK	HK	HK
9	Er.	Harjot Kaur Gill	Assistant Professor	HKG	HKG	HKG	HKG	HKG
10	Er.	Harpreet Kaur	Assistant Professor	HK	HK	HK	HK	HK
11	Er.	Harsimran Kaur	Research Scholar	HKaur	HKaur	HKaur	HKaur	HKaur
12	Er.	Jagdeep Singh	Assistant Professor	JS	JS	JS	JS	JS
13	Er.	Jasmine Kaur	Assistant Professor	JKaur	JKaur	JKaur	JKaur	JKaur
14	Dr.	K.S. Mann	Professor	KSM	KSM	KSM	KSM	KSM
15	Dr.	Kamaljit Kaur	Assistant Professor	KJK	KJK	KJK	KJK	KJK
16	Er.	Kapil Kumar	Assistant Professor	Kapil Kumar	Kapil Kumar	Kapil Kumar	Kapil Kumar	Kapil Kumar

Karanbir S



## Cosolidated Attendance Sheet (QIP-STC)

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing

31st December 2018 (Monday) - 04th January 2019 (Friday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

S.No.	Name of the Participant	Designation	31.12.2018	1.1.2019	2.1.2019	3.1.2019	4.1.2019
<del>18</del>	Dr. Kiran Jyoti	Assistant Professor					
19	Er. Mandeep Kaur	Assistant Professor	MK	MK	MK	MK	MK
20	Er. Mandeep Kaur	Research Scholar					
21	Er. Navpreet Kaur	Research Scholar					
22	Er. Nidhi Sharma	Assistant Professor					
<del>23</del>	Dr. Pankaj Bhambri	Assistant Professor					
24	Ms. Parminder Kaur	Assistant Professor					
25	Er. Prabhjot Kaur	Research Scholar					
26	Er. Prabhjot Kaur	Assistant Professor					
27	Mr. Puneet Singh	Director					
28	Er. Rajni Puri	Assistant Professor					
29	Er. Rupinder Kaur	Assistant Professor					
30	Er. Sachin Bagga	Assistant Professor					
31	Er. Sandeep Kumar Singla	Assistant Professor					
32	Er. Sartinderpal Singh	AP (CP) CP, Computer Centre					
33	Er. Shifa Grover	Research Scholar					

## Cosolidated Attendance Sheet (QIP-STC)

Name of the Course: AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing  
31st December 2018 (Monday) - 04th January 2019 (Friday)

Venue: Consultancy Seminar Hall, Guru Nanak Dev Engineering College Ludhiana

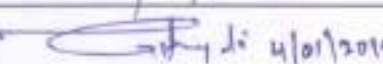

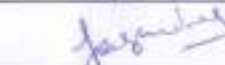
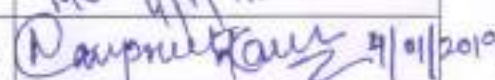
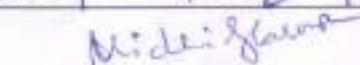

S.No.		Name of the Participant	Designation	31.12.2018	1.1.2019	2.1.2019	3.1.2019	4.1.2019
35	Er.	Sidharth Jain	Assistant Professor					
36	Dr.	Sumeet Kaur Sehra	Assistant Professor					
37	Ms.	Sunanda Lal	Assistant Professor					
38	Er.	Swaranjit Singh	Research Scholar					
39	Ms.	Taranpreet Kaur	Assistant Professor					
40	Dr.	Vikas Singla	Assistant Professor					
41	Er.	Yadvir Kaur	Assistant Professor					
42	Ms.	Shirvani A. Absol	A.P					

43 Mr. Ranjeet Chander  
Dr. Kuran Tyche



**QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana**

**Receiving Slip of 16GB Pen Drive**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
1	Er.	Birpal Kaur	Assistant Professor	GNA University, Phagwara	
2	Er.	Divya Sharma	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	
3	Er.	Gitanjali	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	 4/01/2019
4	Er.	Gurjit Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
5	Er.	Gurjot Singh	Assistant Professor	Malwa College, Samrala	 4/1/19
6	Er.	Harsimran Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	 4/01/2019
7	Er.	Jasmine Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
8	Er.	Kapil Kumar	Assistant Professor	Lingaya's Vidyapeeth, Faridabad	 01/01/19
9	Mr.	Karanbir Singh	CEO	Up2Mark Technologies Pvt. Ltd.	
10	Er.	Mandeep Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	 4/1/19
11	Er.	Mandeep Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	 4/1/19
12	Er.	Navpreet Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	 4/01/2019
13	Er.	Nidhi Sharma	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	
14	Ms.	Parminder Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	 4/1/19

**QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana**

**Receiving Slip of 16GB Pen Drive**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Signature with Date
15	Er.	Prabhjot Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	Prabhjot Kaur 4/1/19
16	Er.	Prabhjot Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	Prabhjot Kaur 4/1/19
17	Mr.	Puneet Singh	Director	Up2Mark Technologies Pvt. Ltd.	Puneet Singh 4/1/19
18	Er.	Rajni Puri	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	Rajni Puri 4/1/19
19	Er.	Sartinderpal Singh	AP (CP)/ CP, Computer Centre	Guru Nanak Dev Engineering College, Ludhiana	Sartinderpal Singh 4/1/19
20	Er.	Shifa Grover	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	Shifa Grover 4/1/19
21	Er.	Shivani Arora Abrol	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	Shivani Arora Abrol 4/1/19
22	Dr.	Sumeet Kaur Sehra	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	Sumeet Kaur Sehra 4/1/19
23	Ms.	Sunanda Lal	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	Sunanda Lal 4/10/2019
24	Er.	Swaranjit Singh	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	Swaranjit Singh 4/1/2019
25	Ms.	Taranpreet Kaur	Assistant Professor	Mata Gujri College, Fatehgarh Sahib	Taranpreet Kaur 4/1/2019
26	Dr.	Vikas Singla	Assistant Professor	Malout Institute of Management & Information Technology, Malout	Vikas Singla 4/1/2019



**Attendance Sheet (QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**  
**Photograph on Dated 31.12.2018**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Remarks for the Photographer
1	Dr.	Amit Kamra	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5156
2	Er.	Birpal Kaur	Assistant Professor	GNA University, Phagwara	5159
3	Er.	Dinesh Anand	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5173
4	Er.	Divya Sharma	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5278
5	Er.	Gitanjali	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5281
6	Er.	Gurjit Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5267
7	Er.	Gurjot Singh	Assistant Professor	Malwa College, Samrala	5157
8	Er.	Hanit Karwal	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5168
9	Er.	Harjot Kaur Gill	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5176
10	Er.	Harpeet Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5175
11	Er.	Harsimran Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5164
12	Er.	Jagdeep Singh	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5153
13	Er.	Jasmine Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5265
14	Dr.	K.S. Mann	Professor	Guru Nanak Dev Engineering College, Ludhiana	5273



**Attendance Sheet (QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**

**Photograph on Dated 31.12.2018**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Remarks for the Photographer
15	Dr.	Kamaljit Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5165
16	Er.	Kanwalpreet Singh Sidhu	Assistant Professor	Bhutta College of Engineering and Technology, Ludhiana	X
17	Er.	Kapil Kumar	Assistant Professor	Lingaya's Vidyapeeth, Faridabad	5158
18	Er.	Karamjit Singh Gill	Assistant Professor	Bhutta College of Engineering and Technology, Ludhiana	X
19	Mr.	Karanbir Singh	CEO	Up2Mark Technologies Pvt. Ltd.	5263
20	Dr.	Kiran Jyoti	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5274
21	Er.	Mandeep Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	5178
22	Er.	Mandeep Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5277
23	Er.	Navpreet Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5279
24	Er.	Nidhi Sharma	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5268
25	Er.	Nitish Sharma	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	X
26	Dr.	Pankaj Bhambri	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5160
27	Ms.	Parminder Kaur	Assistant Professor	Khalsa College for Women, Ludhiana	5161
28	Er.	Prabhjot Kaur	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5276

**Attendance Sheet (QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**

**Photograph on Dated 31.12.2018**

S. No.	Dr./ Er./ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Remarks for the Photographer
29	Er.	Prabhjot Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5269
30	Mr.	Puneet Singh	Director	Up2Mark Technologies Pvt. Ltd.	5262
31	Er.	Rajni Puri	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	5172
32	Er.	Ravinder Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	α
33	Er.	Rupinder Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5266
34	Er.	Sachin Bagga	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5154
35	Er.	Samreet Kaur Gosal	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	α
36	Er.	Sandeep Kumar Singla	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5285
37	Er.	Sartinderpal Singh	AP (CPY CP, Computer Centre)	Guru Nanak Dev Engineering College, Ludhiana	5174
38	Er.	Shifa Grover	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5283
39	Er.	Shivani Arora Abrol	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5288
40	Er.	Sidharth Jain	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5169
41	Dr.	Sumeet Kaur Sehra	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5286
42	Ms.	Sunanda Lal	Assistant Professor	Gujranwala Guru Nanak Institute of Management & Technology, Ludhiana	5170



**Attendance Sheet (QIP Short Term Course on AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing During  
Dec. 31st 2018 – Jan. 04th 2019 by the Dept. of Info. Tech., GNDEC Ludhiana)**

**Photograph on Dated 31.12.2018**

S. No.	Dr./ Er/ Mr./ Ms./ Mrs.	Participant Name	Designation	Affiliation	Remarks for the Photographer
43	Er.	Sunil Aggarwal	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	✓
44	Er.	Swaranjit Singh	Research Scholar	Guru Nanak Dev Engineering College, Ludhiana	5163
45	Ms.	Taranpreet Kaur	Assistant Professor	Mata Gujri College, Fatehgarh Sahib	5162
46	Dr.	V.J. Rai	Principal	Bhutta College of Engineering and Technology, Ludhiana	✓
47	Dr.	Vikas Singla	Assistant Professor	Malout Institute of Management & Information Technology, Malout	5264
48	Er.	Yadvir Kaur	Assistant Professor	Guru Nanak Dev Engineering College, Ludhiana	5177



**Event Report of Quality Improvement Programme (QIP) Short Term Course (STC) on**  
**"AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing"**  
**during Dec. 31<sup>st</sup>, 2018 to Jan. 04<sup>th</sup>, 2019**

Information Technology Department of Guru Nanak Dev Engineering College, Ludhiana concluded the weeklong series of lectures and hands-on practice sessions on Quality Improvement Programme (QIP) Short Term Course (STC) on title "AI, Big Data and HPC Aligned Applications - A Modern Approach of Computing". This STC was sponsored by QIP Centre of the Institute. The valediction programme of this course was organized in the consultancy seminar hall of the campus on Friday. This programme was organized with the **objective of sharing recent developments in the areas of Artificial Intelligence, Big Data and High Performance Computing with practical demonstration**. 17 resource persons of renowned institutions of the region had shared their views and further research areas among the participants.

Dr. Sarabjot Singh Anand from Sabudh Foundation, New Delhi was invited as chief guest for the valediction of this programme. In his speech, chief guest emphasised that awareness of technology trends in AI and HPC is the need of the hour, but at same time security of information transferred is important area of concern. He further elaborated that role of hidden variables in machine learning.

In the whole five day programme the academicians, software professional and researchers were invited to deliver the expert talks during the course. During this programme, **Dr. Shashi Shekhar Jha from IIT Ropar elaborated the case study of Demands and Supplies Prediction for Taxis in Singapore**. Dr. Sukhwinder Singh, Director, Computer Centre at Panjab University, Chandigarh pointed out various **innovative ideas implemented at the industry and government level for the concern of Artificial Intelligence and High Performance Computing**. Dr. Kuldeep Kumar from Dr. B.R. Ambedkar National Institute of Technology, Jalandhar discussed the topics of **Practical Approach to Research Methodologies and Industry-Academic Research Trends in Computing**. He demonstrated the contents by sharing live examples.

Er. Navjot Singh from AlertEnterprise Chandigarh shared his views on **Disruptive Applications of AI in Various Industries with Use Cases and Scientific Solutions**. He elaborated the Alignment of Academic and Research in Modern Day AI based Disruption and Opportunity for Application Oriented Research Activities. Dr. Pankaj Bhambri from GNDEC Ludhiana presented the role and need of High Performance Computing with evolving research trends in bioinformatics. Mr. Vipin Gupta from U.Net Solution organized the hands on session on **Implementation of Docker Cluster and Software Defined Networking**. Dr. Nirnal Kaur from UIET Panjab University Chandigarh and Er. Amit Deoger from NITTTR Chandigarh delivered their expert talks on Need cum Techniques for **Energy Aware Scheduling and Implementation of Load Balancer** for Big Data Applications, respectively. Er. Sandeep Kumar Singla shared his practical exposure to Big Data Analytics using the R Lab.

Dr. Pankaj Bhambri, the course coordinator of this programme conveyed that this course was organized with the objectives to expose the faculty/ research scholars/ industry based persons in emerging technologies. This programme provided the practical foundation level training to enable the audience for insight into digital disruption and accelerating machine learning on AI through performance libraries and platforms. Dr. Bhambri informed that the course contents for this STC included AI, Bigdata & HPC aligned applications; Exposure to Analysis; Interpretation of Data; AI, Big Data & HPC Research Methods; Exploration of Contemporary Research in Teaching Learning; Real Life Implementation Scenarios; Case Studies and Lab Sessions.

Dr. Kiran Jyoti, HOD of IT Dept. and faculty coordinator of this course presented the summary & feedback report of this short term course at valediction programme. She shared the roles of social media, mobility, analytics and cloud computing. Dr. Sehijpal Singh, Principal of GNDEC mentioned the benefits as well as wastage of resources due to updation in technology every day. He discussed the significance of these types of courses for faculties as well as researchers and congratulated the course coordinators for organizing this STC. Participation Certificates were issued to 41 participants, which came from different regions of the country to attend this STC.

  
**PANKAJ BHAMBRI**  
Course Coordinator

## ABOUT THE COURSE

The requirement for efficient and low-profile antennas has propelled research work in the development of antenna structures with performances considerably enhanced over traditional antenna structures and methodologies. This course is devoted to the fundamental theory, recent developments and research outcomes addressing the related theoretical and practical aspects in the usage of advanced tools and techniques for the design of antennas.

Primary focus of this course is to introduce design challenges of several antennas and their possible solutions which should be further investigated for the future generation applications. It will also enhance the research competence of faculty in the areas of antennas by providing exposure to practical problems and solutions through case studies. In particular, the course will start with the introduction to the basics of antenna theory and then covering all the major details of latest trends in antenna design along with hands on session to give insights.

## COURSE CONTENTS

- Antenna Fundamentals
- Antenna Parameters and Measurements
- Dipole Antenna Analysis and Applications
- Microstrip Antennas
- Antenna Arrays
- Fractal Antennas
- Metamaterial Antennas
- Design of Antennas using Conventional and Soft Computing approaches
- Antenna Fabrication and Measurement
- Antenna Design: Case Studies
- Session on Art of Living

## IMPORTANT DATES

Submission of registration form :  
23.11.2018

Acceptance notification :  
27.11.2018

## CONTACT DETAILS

Dr. Balwinder Singh Dhaliwal  
Assistant Professor  
Department of Electronics and  
Communication Engineering  
Guru Nanak Dev Engineering College  
Ludhiana, Punjab - 141006

E-mail: [ece.antennacourse@gmail.com](mailto:ece.antennacourse@gmail.com)

Phone: 0161-5064766 (O)  
98148-34209 (M)

## PATRON

Dr. Schijpal Singh (Principal)  
Guru Nanak Dev Engineering College  
Ludhiana

## CO-PATRON

Dr. Sandeep Singh Gill, HOD (ECE)

## COORDINATOR

Dr. Balwinder Singh Dhaliwal  
Assistant Professor, Deptt. of ECE

AICTE-ISTE Induction/Refresher Course

On

*Advances in*  
*Antenna Theory and Techniques*

03.12.2018 to 08.12.2018



Coordinator

Dr. Balwinder Singh Dhaliwal

Organized by

Department of Electronics and Communication  
Engineering

Guru Nanak Dev Engineering College  
Ludhiana

Gill Road, Gill Park, Ludhiana, Punjab - 141006

E-mail: [ece.antennacourse@gmail.com](mailto:ece.antennacourse@gmail.com)

Phone: 0161-5064766 (O)  
98148-34209 (M)



### ABOUT THE INSTITUTE

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been striving persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The college has been declared an autonomous college by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various B.Tech courses, the institute also imparts thirteen postgraduate courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

### ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering, established in 1981, is one of the most dynamic departments of Guru Nanak Dev Engineering College. The department is currently running UG and PG courses in Electronics and Communication Engineering and has around 15 scholars enrolled for doctorate in areas like Antenna Design, VLSI, Optical communication etc. Ever since its inception, the department has been the hub of academic excellence through some great teachers who have spread their wings all over the globe. The alumni of the department are not only excelling in India but also in the Silicon Valley and other hubs of electronics technology. They are at the forefront of the telecom revolution of the last 20 years and manning pivotal positions in telecom operators in India, South East Asia, Pacific region and Africa. In the last three years, as a part of an academically autonomous system, the department has been taken numerous quality initiative including revamping of syllabi so that it is in tune with the outcome based system as proposed in the Washington Accord.

ECT Department is continuously maintaining strong international collaboration with outside world in form of joint research initiatives, editorial board memberships of reputed international journals, serving on academic bodies of various universities.

### REGISTRATION

There is no registration fee for participants from academic institutes. All short-listed candidates are required to confirm their participation by sending the scanned copy of duly filled registration form by email to [eee.antennacourse@gmail.com](mailto:eee.antennacourse@gmail.com)

Maximum no. of participants is 40 and confirmation of eligible candidates will be on a first-come first-serve basis. Preference shall be given to the participants having ISTE Life Membership. Incomplete application forms will not be entertained. Registration forms should reach the coordinator by 23.11.2018

### ELIGIBILITY

Faculty members of recognized degree level engineering colleges are eligible to attend the course.

The certification of this program will be done by ISTE jointly with AICTE. A test shall be conducted at the end of the program and the certificates will be issued only to those participants, who qualify the test. Also 100% attendance is mandatory.

### TRANSPORT, BOARDING & LODGING

Reimbursement of TA to participants shall be as per AICTE-ISTE FDP entitlement rules. Accommodation will be provided free of cost in the students hostels or guest house on sharing basis.

AICTE-ISTE Induction/Refresher Course  
On

## Advances in Antenna Theory and Techniques

03.12.2018 to 08.12.2018

Guru Nanak Dev Engineering College

Ludhiana

### Registration Form

Name (in block letters):

Gender:

Qualification:

Designation/Department:

Are you an ISTE Member? : YES / NO

If YES, then Membership No. \_\_\_\_\_

Organization:

Address:

Mobile:

Email:

Accommodation required: YES / NO

Signature of candidate

Sponsorship & Signature of Head of the College /  
Institute (with date & seal)

(Important: By signing above, head of the College/Institute certifies that applicant is a faculty member of degree level technical institution)





# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

An Autonomous College U/S 2(f) and 12(B) of UGC Act 1956

Institute Accredited by NAAC (A Grade) under UGC & TCS

AICTE Approved, Punjab Govt. Aided Status, Affiliated to IKG Punjab Tech. University, Jalandhar  
ISO : 9001:2008 Certified • UG Programmes accredited by IEI

Ref. No. FCE/1943

Dated 04/12/2018

## CERTIFICATE

It is to certify that *Er.Chahat Jain of GNDEC, Ludhiana* has conducted *hands on/lab session* on *"Antenna design and Simulation using IE3D basics"* on *03-12-2018* in *AICTE-ISTE Induction/ Refresher Course on "Advances in Antenna Theory and Techniques"* during *03-12-2018 to 08-12-2018*.

Regards,

*Dr. Balwinder Singh Dhaliwal*

Coordinator (AICTE/ISTE Induction/Refresher Course)

& Assistant Professor

Department of Electronics and Communication Engineering,

Guru Nanak Dev Engineering College, Ludhiana (Punjab), INDIA

Phone :- (O) 0161-5064766, (M) 09814834209



# ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਇੰਜੀਨੀਅਰਿੰਗ ਕਾਲਜ Guru Nanak Dev Engineering College

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AICTE Approved, Punjab Govt. Aided Status, Affiliated to IKG Punjab Tech. University, Jalandhar  
ISO : 9001:2008 Certified • UG Programmes accredited by IET

Ref. No. ECC/1976

Dated 07/12/2018

## CERTIFICATE

It is to certify that **Mr. Vivek Tiwari of VIS Photo Circuits, Ambala** has given demonstration on **"Antenna Designing and Fabrication"** on **07-12-2018** in AICTE-ISTE Induction/ Refresher Course on **"Advances in Antenna Theory and Techniques"** during **03-12-2018 to 08-12-2018**.

Regards,

Dr. Balwinder Singh Dhaliwal  
Coordinator (AICTE/ISTE Induction/Refresher Course)  
& Assistant Professor  
Department of Electronics and Communication Engineering,  
Guru Nanak Dev Engineering College, Ludhiana (Punjab), INDIA  
Phone :- (O) 0161-5064766, (M) 09814834209



Presenting a token of gratitude to Expert Dr. Ardamanbir Singh (in the middle), right side (Coordinator Dr. Balwinder Singh Dhaliwal) and Left (Prof. Ameeta Seehra)





Coordinator, Principal, Chief Guest and HOD during inauguration ceremony



Principal, Chief Guest, HOD and Coordinator of Course







Dr. Balwinder singh Dhalwal, GNDEC Ludhiana demonstrating VNA tool in lab session



Expert during the session



Dr. Narwant Singh Grewal, GNDEC Ludhiana delivering expert talk





Report of  
**AICTE - ISTE Induction/Refresher Course**  
**on**  
**Advances in Antenna Theory & Techniques**  
**from 03/12/2018 to 08/12/2018**

This course started on 03/12/2018 and we have conducted 22 technical sessions for the participants which included 17 theory sessions, 3 lab cum hands on sessions and 2 sessions by industry personals. Theory sessions are conducted by resource persons from reported institutions like IIT Jammu, Thapar Institute of Engg. & Tech. Patiala, Punjabi University Patiala besides experts from our own college. During lab sessions, hands - on practice is undertaken by the participants on the electromagnetic simulator and actual measurements of the fabricated prototypes are demonstrated. One session on the demonstration of fabrication of prototypes is conducted by industry persons. The topics covered in the program include

- Antenna design for 5G communication
- Antenna array failure correction
- Antenna design using soft - computing
- Meta - materials' applications in antenna design
- Different types of antennas, etc.

We had 22 participants from various states like JK, HP, Haryana, UP, different colleges of Punjab in addition to participants from our college. A session on art of living was also organized for the participants. As per the feedback of participants, they found this course useful due to many reasons like-

- Practical knowledge
- New research directions
- Forum for discussion on their research problems
- Networking etc.

The course was inaugurated by Dr. Manoj Kumar, Principal, DAV Institute of Engg. & Tech. Jalandhar and the certificates to the participants were distributed by Dr. Ajay Sharma, Vice-Chancellor of IKG PTU, Jalandhar during valediction function.



Dr. Balwinder Singh Dhaliwal  
Course Coordinator

**AICTE-ISTE one week induction/ refresher course  
on  
"Advances in Antenna Theory and Techniques"  
(3.12.2018 – 8.12.2018)**

**List of Participants Attended the Training Program**

Sr. No.	Name	Qualification	Designation	Institute	E-Mail ID	Mobile No.
1.	Narwant Singh Grewal	Ph.D.	Assistant Professor	GNDEC, Ludhiana	<a href="mailto:narwant@gndec.ac.in">narwant@gndec.ac.in</a>	9855018703
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5.	Manpreet Kaur	M.Tech	Assistant Professor	YCOE Talwandi Sabo	<a href="mailto:sketly@rediffmail.com">sketly@rediffmail.com</a>	9779567877
6.	Ghanshyam Singh	M.E	Assistant Professor	FGIET Rae Bareli	<a href="mailto:ghanshyamtanu@rediffmail.com">ghanshyamtanu@rediffmail.com</a>	9453579597
7.	Dhawan Singh	Ph.D. (Pursuing)	Assistant Professor	Eternal University	<a href="mailto:dhawan_deon@ieee.org">dhawan_deon@ieee.org</a>	7018743983
8.	Sunderjeet Singh Gill	M.Tech	Assistant Professor	BCET Bhuta	<a href="mailto:ssgill.bcet@gmail.com">ssgill.bcet@gmail.com</a>	7837913477
9.	Suman Pattnaik	M.E.	Associate professor	SSIET Dera Bassi	<a href="mailto:sumanbhagat1199@gmail.com">sumanbhagat1199@gmail.com</a>	9465124175
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*B. Mohan*



11.	Ajay Abrol	Ph.D. (Pursuing)	Associate Professor	GCET, ChakBhal wal, Jammu	<a href="mailto:ajayabrol17569@rediffmail.com">ajayabrol17569@rediffmail.com</a>	9419137081
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13.	Gurinder Singh	M.Tech	Assistant Professor	LCET Katani Kalan	<a href="mailto:gurindersinghbal@gmail.com">gurindersinghbal@gmail.com</a>	9914179844
14.	AmeetaSee hra	M.Tech	Associate Professor	GNDEC, Ludhiana	<a href="mailto:aseehra@gndec.ac.in">aseehra@gndec.ac.in</a>	9872139597
15.	Chahat Jain	M.Tech	Assistant Professor	GNDEC, Ludhiana	<a href="mailto:chahatjain26@gmail.com">chahatjain26@gmail.com</a>	7837005620
16.	Daljit Singh	M.Tech	Assistant Professor	GNDEC, Ludhiana	<a href="mailto:gne.daljit@gmail.com">gne.daljit@gmail.com</a>	9855578987
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22.	Deepika	M.E.	Assistant Professor	GGI Khanna	<a href="mailto:deepika213@gmail.com">deepika213@gmail.com</a>	7009810269

*B. Malhotra*

(Course Co-ordinator)

## ABOUT THE COURSE

Machine learning is an essential approach to analyze and extract useful information from a wide range of big data; it provides the fundamental tools for big data analytics. By developing fast and efficient algorithms and data-driven models for real-time processing of data, machine learning is able to produce accurate results and analysis. In the past decade, machine learning has been applied in Google's self-driving car, image recognition, computer vision, speech recognition and natural language processing, intelligent robotics, smart cars, automation, online search and recommendations, financial trading and risk management, healthcare, and personal and public security. Machine learning is so pervasive today that we probably use it dozens of times a day without knowing it.

This course aims to introduce the participants to Machine Learning and its various applications. In particular, the course will start with the introduction of machine learning followed by algorithms used in machine learning. Next, some applications shall be covered and state of the art technologies with hands on exercises will be provided to give insights.

## COURSE CONTENTS

1. Introduction to Artificial Intelligence and Machine Learning
2. Significant parameters and issues in Machine Learning
3. Machine Learning Algorithms
4. Applications of Machine Learning in various disciplines
5. Hands on sessions on relevant tools

## IMPORTANT DATES

Submission of Registration form by 25.01.2019

Acceptance Notification by 30.01.2019

## CONTACT DETAILS

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Guru Nanak Dev Engineering College

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## PATRON

**Dr. Sehijpal Singh (Principal)**

Guru Nanak Dev Engineering College, Ldh.

## COORDINATOR (s)

**Dr. Sandeep Singh Gill**

Prof. Tarandeep Singh

## ORGANISING COMMITTEE

Prof. Ameeta Sehra

Dr. Narwant Singh

Dr. Balwinder Singh

Dr. Munish Rattan

Dr. Baljeet Kaur

Prof. Harminder Kaur

Prof. Navneet Kaur

Prof. Gurpreet Kaur

Prof. Chahat Jain

Prof. Kuldeepak Singh

Prof. Harminder Kaur Aulakh

Prof. Daljit Singh

Prof. Naazla Makkar

Prof. Preeti Pannu

Prof. Shivmanmeet Singh

## QIP SHORT TERM COURSE ON

## Machine Learning Applications in Engineering

(4<sup>th</sup>-9<sup>th</sup> February, 2019)



## COORDINATOR (s)

**Dr. Sandeep Singh Gill**

Prof. Tarandeep Singh

## ORGANISED BY

**Department of**

**ELECTRONICS & COMMUNICATION  
ENGINEERING**

**Guru Nanak Dev Engineering College**

Gill Road, Ludhiana, Punjab-141006

Phone : 0161- 5064576 (O)

E-mail: gndec.ace.qip@gmail.com

## ABOUT THE INSTITUTE

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been striving persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various B.Tech courses, the institute also imparts thirteen Postgraduate courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

## ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering, established in 1961, is one of the most dynamic departments of Guru Nanak Dev Engineering College. It was the first diversification initiative by the college, 25 years after its establishment. The department is currently running UG and PG courses in Electronics and Communication Engineering and has around 15 scholars enrolled for doctorate in areas like Antenna Design, VLSI, Optical communication etc. Ever since its inception, the department has been the hub of academic excellence through some great teachers who have spread their wings all over the globe. The alumni of the department are not only excelling in India but also in the Silicon Valley and other hubs of Electronics Technology. They are at the forefront of the Telecom revolution of the last 20 years and manning pivotal positions in Telecom operators in India, South East Asia, Pacific region and Africa. In the last two years, as a part of an academically autonomous system, the department

has taken numerous quality initiatives including revamping of syllabi so that it is in tune with the outcome based system as proposed in the Washington Accord.

ECE Department is continuously maintaining strong international collaboration with outside world in form of joint research initiatives, editorial board memberships of reputed international journals, serving on academic bodies in various universities and industry institutes, joint research initiatives.

## REGISTRATION

There is no registration fee for participants from academic institutes. All short-listed candidates are required to confirm their participation by sending the scanned copy of duly filled Registration form by e-mail to [gndec.ece.qip@gmail.com](mailto:gndec.ece.qip@gmail.com).

Shortlisting and confirmation of eligible candidates will be on a first come first served basis. Incomplete application forms will not be entertained. Registration forms should reach the coordinator by 25.01.2019.

## ELIGIBILITY

Faculty members and research scholars of degree level engineering colleges recognized by AICTE are eligible to attend the course. Course being interdisciplinary in nature, faculty and research scholars of all engineering branches are eligible to apply.

Course Completion Certificate will be given only if the attendance criterion is satisfied.

## TRANSPORT BOARDING & LODGING

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

## QIP SHORT TERM COURSE ON

# Machine Learning Applications in Engineering

(4<sup>th</sup>-9<sup>th</sup> February, 2019)

## REGISTRATION FORM

Name (in block letters) \_\_\_\_\_

Gender: \_\_\_\_\_

Qualification: \_\_\_\_\_

Designation/Department: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Accommodation Required in Campus: YES / NO \_\_\_\_\_

Signature of Participant \_\_\_\_\_

Sponsorship & Signature of Head of the College / Institute  
(with date & seal).

(Important: By signing above, head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)



## PROCEEDINGS

**TITLE: MACHINE LEARNING APPLICATIONS IN ENGINEERING**

**DATE: February 04-08, 2019**

An one week QIP Short Term Course on "Machine Learning Applications in Engineering" was conducted by Department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from February 04-08, 2019.

The course was aimed to introduce the participants to Machine Learning and its various applications. The course planning for the course included the introduction, followed by the algorithms and applications of machine learning. State of the art technologies with hands on exercises were also planned for the course. Course being interdisciplinary in nature, faculty and research scholars of all engineering branches were eligible to apply. Dr. Sandeep Singh Gill and Er. Tarandeep Singh coordinated the course. An organising committee including the coordinators and faculty of the department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana was setup for the smooth running of the course. A total no. of 58 participants from various reputed colleges/ universities such as NIT Jalandhar, GCET jammu, DKTGI Rahon, Thapar University Patiala, MRSPTU Bathinda and many more attended the course. Various experts from IIT Ropar, NIT Jalandhar, Bennett University Greater Noida and many more presented their expertise. Hands on exercises on MATLAB, WEKA and PYTHON were also provided to the participants. Experts from Guru Nanak Dev Engineering College, Ludhiana also took part in this platform to present their expertise.

The list of experts present for the course is presented in Table 1.

S. No.	Name of Expert	College/University/Company
1	Dr Kanav Kahol	Pink Rickshaw Design, New Delhi
2	Dr. Kuldeep Singh Nagla	NIT Jalandhar
3	Dr. Kuldeep Kumar	NIT Jalandhar
4	Dr. Amit Kamra	GNDEC, Ludhiana
5	Dr. Sudarshan Iyengar	IIT Ropar
6	Er. Tarandeep Singh	GNDEC, Ludhiana
7	Er. Navjot Singh	AlertEnterprise, Chandigarh
8	Dr. Suneet Kumar Gupta	Bennett University, Greater Noida, U.P.
9	Dr. Neeraj Goel	IIT Ropar
10	Dr. Mukesh Saini	IIT Ropar
11	Dr. Sandeep Singh Gill	GNDEC, Ludhiana

Table 1: List of Experts

The 5 day session workshop commenced on 04<sup>th</sup> Feb, 2019 with the inaugural ceremony and keynote address by Dr. Kanav Kahol, Chief Technical Officer, Pink Rickshaw Design, New Delhi. Everyday 3 sessions were planned for the experts. The sessions were a mixture of theory and practical.



gements for Tea and Lunch was present for the participants as well as experts. The details for this session has been listed below:

#### Session 1: Scope of Machine Learning

The session was the introductory session for the course. This session introduced the participants to machine learning and how machine learning is transforming lives nowadays. It also focused on the applications of machine learning in various disciplines. This session was aimed to create a sense of curiosity and motivation for the participants and it proved to do so.

#### Session 2 : AI in Mobile Robotics: Focused on multi sensor data fusion

This was the 2<sup>nd</sup> session in row. It was focused on the application of AI and Machine Learning in Robotics. The concept of multi sensors being fused in robotics was discussed. This session concluded with the focus of ISRO and DRDO in this area.

#### Session 3: A Practical Approach to Research Methodologies in Machine learning

This session focused on the research areas in machine learning and the practical approaches to research in this area. The present scenario in research was discussed and new Possible research areas were also listed.

#### Session 4: Transforming Machine Learning data through WEKA

This was a hands on session focused on WEKA. The participants were introduced to WEKA and were taught how to handle data in machine learning through WEKA. This session proved out to be very informative for the participants.

#### Session 5: Introduction to Machine Learning through motivational stories

This session targeted the motivation of the participants through some motivational stories in which machine learning had created a difference. A large no. of examples and proven stories were discussed with the participants where machine learning proved out to be very beneficial and large empires were setup on this concept

#### Session 6: Unsupervised learning algorithm that created a 500 billion dollar industry

This was a hands on session on Python. This session started with the basics of Python and moved towards a certain algorithm that had helped to create a 500 billion dollar industry.

#### Session 7: Essentials of Machine Learning Algorithms

This session focused on various machine learning algorithms such as Random Forest, Support Vector Machine, Linear Regression, Logistic Regression, Decision Tree, Naive Bayes, kNN, K-Means and many more. The focus of this session was to introduce the participants to the basics of the actual algorithms working behind Artificial Intelligence and Machine Learning.

#### Session 8: Disruptive applications of AI in various industries with use cases and scientific solutions

This was a hands on session on Python where various problems from industries were taken and their solutions through machine learning were taught to the participants.

#### Session 9: Alignment of Academic and Research in modern day AI based disruption and opportunity for application oriented research activities

This session was focused to understand the gap between academic and research in AI and machine learning and how both can be aligned in accordance to the modern day scenario.





#### Session 10: Basics of ML and AI

This was a hands on session in MATLAB. This session focused upon the basics of Machine Learning and Artificial Intelligence in Matlab. This session also helped a lot to the participants as majority of the participants were familiar with the environment in MATLAB. The participants also worked on some examples on machine learning that helped to enhance their knowledge on the use of this tool for AI.

#### Session 11: Hyperparameter Tuning

This session was focused on a very important topic i.e. to choose parameters on which the learning depends in machine learning algorithms. The algorithms discussed earlier were again reviewed but with an angle of learning parameters. The vision to these algorithms broadened after this session and participants were able to understand the nature of learning in various problems related to machine learning.

#### Session 12: Convolutional Neural Network, Recurrent Neural Network

This session focused upon the uses of Neural Networks in Machine Learning. Along with the theory, hands on sessions on examples based on Convolutional Neural Network and Recurrent Neural Network were discussed in this session.

#### Session 13: Hardware architecture for Deep Learning Applications

This session was focused on the Hardware Architecture in Deep Learning. Along with the software or GUI Platform that's required for Machine Learning, the participants were able to understand the hardware requirements for AI through this session.

#### Session 14: Advanced Surveillance Systems

This session focused on the applications of machine learning with focus on advanced surveillance systems. In this session, the traditional surveillance systems were discussed and light was thrown on the changes in these systems that machine learning could perform.

#### Session 15: Future of Artificial Intelligence and Machine Learning

This was the concluding session of the course. This session focused on the future aspects of Artificial Intelligence and Machine Learning. This gave the participants an idea that what could be expected from Machine Learning in the future.

The Five day course ended on 08<sup>th</sup> Feb, 2019 with the valedictory ceremony. The participants were given certificates for their participation and feedback was taken from them. Based on the positive feedback received, this course surely helped them to broaden their vision about machine learning and will pave new paths in research areas in the future.




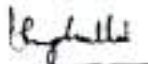
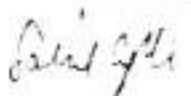
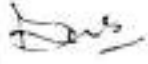

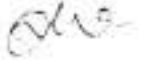


**One week QIP Short Term Course on  
"Machine Learning Applications in Engineering"**

(February 01-08, 2019)

Organized by Department of Electronics and Communication Engineering  
Guru Nanak Dev Engineering College, Ludhiana

**List of Candidates for participation**

S.No.	Name of Candidate	Organization	Designation/ Department	Address	Contact no.	E-mail ID	Signature
1	Chitarranjan Kumar Rai	NIT Jalandhar	Student/ ECE	NIT Jalandhar	7280946271	Chitarranjanrai@gmail.com	
2	S. Hardeep Singh	G CET Jammu	Lecturer, Mechanical	G CET Jammu	8713069184	sethhardeepsingh@gmail.com	
3	Satish Gupta	DKTGI Rohon	AP, ECE	DKTGI Rohon	9877439474	Satishworlds@gmail.com	
4	Dr. Gurpreet Kaur	GNDEC Ludhiana	AP, ECE	Ludhiana	9872544319	kgurpreetkaur@gmail.com	
5	Gurpreet Kaur	GNDEC Ludhiana	AP, ECE	GNDEC Ludhiana	9988825855	gurpreetkaur@gmail.com	
6	Manish Kumar	GNDEC, Ludhiana	AP, ECE	GNDEC Ludhiana	826644904	manishkaur@gmail.com	

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11	PALLAVI ARDRA	GPC GTB GARM Govt Polytechnic College, GTB GARM)	Lecturer	CSE dept	8559027000	pallavigrewal2191@gmail.com	<u>P</u>
12							
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14	Kamalpreet Kaur	GNDEC	Pursuing M.Tech	GNDEC ECE dept	6280225028	KKamalpreet851@gmail.com	Kamalpreet
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24	Kapil Singh	LPU	M-Tech PhD (A.P)	Talwandi	9777710616	Kapil.16751@ gmail . com	Kapil Singh
25	GEETA KACHIL	HRSTU Bathinda	Research Scholar (Ph.D.)	Hos D, Palam Vihar Ambala Cantt	8059102105	Dr. Geeta Kachil @ gmail . com	Geeta Kachil



	Dr. Kuldip Sahra	SNICE Multitask	Research Principle	SNICE Multitask			
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28	Kuldeep Singh	GNDEC	Student (Punjab Univ) ECE	GNDEC Ludhiana	984599 9530517750	amritpal1410@gmail.com	Amritpal Kaur
29	Kuldeep Singh	GNDEC	Student (Punjab Univ) ECE	GNDEC Ludhiana	95017-2984	Kuldeep92@gmail.com	Kuldeep Singh
30	Tarandeep Singh	GNDEC	AP, ECE	GNDEC Ldh	950118009	gms Tarandeep Singh @ gmail.com	T
31	Dr. Yadwinder Kumar	YCOE Punjab Univ	AP, ECE	YCOE, Tolwardi Scho	99147-05252	gms Tarandeep Singh @ gmail.com	T
32	Swarnjit Singh	GNDEC	Research Scholar	GNDEC	9464824812	yaddi79@gmail.com	Dr
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35	Naupreet Kaur	GNDEC / CSE	RESEARCH SCHOLAR	GNDEC LDH	89685- 59944	Naupreetj15@gmail .com	Naupreet
36	Dr. Tripatjot Singh Panag	BBSBEC, Fatehgarh Sahib	Faculty AP	Fatehgarh Sahib	98557 64499	tripatjot.singh @bbsbec.ac.in	Tripatjot
37	Chetanjot Kaur	GNDEC / ECE	Student Publishing M-Tech	GNDEC Ludhiana	9781730940	chetanjotkaur95@ gmail.com	Chetanjot
38	ROHIN GUPTA	GNDEC / ECE	Research Scholar	GNDEC Ludhiana 82/5, Ganga Colony Karnah	98151-2077	e.g.g.rohin@gmail. com	Rohin
39	Gitanjali	GNDEC / CSE	Research Scholar	GNDEC LDH	7508018440	sharda.gitanjali440 @gmail.com	Gitanjali
40	Bhumiika Narang	GNDEC / ECE	Research Scholar	GNDEC LDH	9868856725	Bhumiika.Narang17 @gmail.com	Bhumiika
41	Shubhneet Kaur	GNDEC / ECE	Research Scholar	GNDEC LDH	7901821961	shubhisidhu02@ gmail.com	Shubhneet
42	Amandeep Kaur Sohal	CSE / GNDEC	Assistant Prof	GNDEC, LDH	9501199915	amandeepkaursohal @rediffmail.in	Amandeep

	Major, Kaur Gill	CSE / GINDEC, LDH	A.P	GINDEC, LDH	58915	major972@gmail.com	
44	Chahat Jain	ECE /GINDEC LDH	A.P	GINDEC, LDH	7837005620	chahatjain86@gmail.com	
45	Gurpreet Kaur	ECE /GINDEC	Research Scholar	GINDEC, LDH	94553-569 04	Kaur1203@gmail.com	Gurpreet Kaur
46	Hansimran Kaur	CSE/GINDEC Ludhiana	Research Scholar	GINDEC, LDH.	95555-70002	HansimranKaur2110 @gmail.com	HKaur
47	Dr Jyoteesh Mahotra	GINDU RC Jalandhar	Professor & Head ECE Dept	GINDU RC, Jal	9781810360	Jyoteesh@gmail.com	Jyoteesh
48	Tawseef Ahmed Bhat	CSE /GINDEC	Research Scholar	GINDEC, LDH	8544937940	tawseef93tawseef@gmail.com	Tawseef
49	Tanu	ECE /NITJ	Research Scholar	NITJ Jalandhar	9855036821	tanu1991libra@gmail.com	Tanu
50	Daljit Singh	ECE /GINDEC	A.P	GINDEC	9855578967	gndaljit.singh@gmail.com	
51	Chandanpreet Kaur	CSE/GINDEC	Research Scholar	GINDEC, LDH	8872282209	Chandanpreet1995 @gmail.com	



	Mahimayrat Lauze	CSE / GNDec LdH	Research Scholar	GNDec	748615305 mahimayrat1996@gmail.com	mahimayrat
53	Shubhanga Sharma	ECT / GNDec LdH	Research Scholar	GNDec	98120110123 shubhanga1996@gmail.com	Shubhanga
54	Lipinika Kaur	EC / GNDec LdH	Research Scholar	GNDec	83722-0843 lipinika1996@gmail.com	Lipinika
55	Senali	CT Institution	Research Scholar	CT Institution	8146466981 schanwaricalisist@gmail.com	Senali
56	Priya	CT Institute	Research Scholar	CT Institute	8725083470 priyapare905@gmail.com	Priya
57	Shubham	CT Institute	Research Scholar	CT Institute	91508708016 shubham94@gmail.com	Shubham
58	Abhishek	CT Institute	Research Scholar	CT Institute	8699699432 abhishek bhagat229@gmail.com	Abhishek
59						
60						

GURU NANAK DEV ENGINEERING COLLEGE LUDHIANA  
(Department of Electronics & Communication Engineering)  
(An Autonomous College under UGC Act.)

Date: 14/12/18  
ECR No. 1958

No. ECE/1958

Principal

Guru Nanak Dev Engineering College

Ludhiana

Through HOD (ECE)

~~Subject~~ To issue an advance of Rs 50,000/-

For

The Department of Electronics and Communication Engineering is organizing one week QIP Short  
~~Term~~ Course on "Machine Learning Applications in Engineering" from February 04-09, 2019.

~~Kindly~~ Issue an advance of Rs 50,000/- to meet the small expenditures (like Brochure printing and  
~~meeting~~ purchase of stationery, decoration etc.) related to various activities of this program. The  
~~amount~~ may be given in the name of Dr. Sandeep Singh Gill.

  
17-12-18

(9)



Dr. Kanav Kahol, Chief Guest sharing his expertise





Participants



Dr. Rupinder Singh , Dr. Sehijpal Singh (Principal), Dr. Kanav Kahol (Chief Guest), Dr. Sandeep Singh Gill (HOD and Coordinator)



Dr. Iyenger, IIT Ropar delivering talk





Presenting memento to Expert Dr. Kuldeep Singh Nagla, NIT Jalandhar (in center), Right side (Dr. Munish Rattan), Left Side (Dr. Baljeet Kaur)

#### About the GNDEC, Ludhiana.....

Guru Nanak Dev Engineering College (GNDEC) was established by the Nankana Sahib Educational Trust (NSET) in the year 1956. NSET was founded in the memory of the most sacred temple of Nankana Sahib, birth place of Guru Nanak Dev Ji. The main mission for establishing Guru Nanak Dev Engineering College was 'Removal of Economic Backwardness through Technology'. To fulfill this commitment, a unique admission criterion was adopted by NSET by reserving 70% seats for the students of rural areas. At present seven undergraduate and thirteen post graduate courses are being offered in Engineering apart from MBA and MCA. The college is an QIP centre for Ph.D. admissions by AICTE in Civil Engineering, Mechanical Engineering and Electrical Engineering.

#### About the Department.....

Civil Engineering Department has been *accredited* since 2004 by NBA and also by NAAC. It is running three full time PG programmes (Structural Engineering.; Geotechnical Engineering.; Environmental Science and Engineering) and one part-time PG programme (Soil Mechanics and Foundation Engineering) along with UG programme in Civil Engineering in two shifts. The department has the state of art facilities for R&D activities and is actively engaged in providing consultancy services to different government and private sector in and around Punjab with an annual turnover of approximately Rs one crore. The department has been declared as **QIP Centre** for Ph.D by AICTE, New Delhi from the session 2011-2012 and is supported under the **FIST** scheme and **TEQIP-II** scheme *GOI*.

#### About the Course.....

Design is an ever evolving process and it is entirely different now-a-days than it was few decades back due to the better understanding of the material behavior and development of new materials (models). Nevertheless, basic aim of the structural design process remains the same, i.e. to proportion and select various dimensions of the constituent members of the structural system and their other parameters, such as materials, shape, construction technique, etc. so that it must be able to fulfil its purpose with an adequate safety, serviceability and economy; the safety not only implies resistance to the external actions, but it also concentrates on the ductility and robustness of the system.

The material characteristics and its response to the loading play an important role in a design process. It is, therefore, essential that the designer must possess adequate knowledge about the material characteristics going to be used in the construction and their failure envelop describing the safe design stresses.

The course aims to refresh the fundamental concepts related to new and conventional structural materials, their material models and the design of buildings using reinforced concrete as structural material and appraise the participants about the latest developments in the design and practice of RC buildings through some live project/ hands-on-training/ assignments.

#### Course contents.....

- New material developments
- Material models and the design process
- Fundamental concepts related to the design
- Design of RC members for shear, bending and torsion
- Practical considerations and codal guidelines

*QIP sponsored*  
*Short Term Training Program*

*On*

*Analysis and Design of RC Buildings :  
Concepts and Practice*

**February 19 - 23, 2019**



**Organized by**

**Civil Engineering Department,  
Guru Nanak Dev Engineering College,  
Ludhiana (Punjab)- 141006**



### How to Reach GNDEC, Ludhiana

The institute is located on Ludhiana-Malerkotla road (also, called Gill road) and is around 6 km from the Bus Stand and 7 km from the Ludhiana railway station. It is well connected to other parts of the country by both rail and road. Important trains, like Shatabdi Express, Rajdhani Express, Howrah Mail, Malwa Express, Golden Temple Mail, Pachim Express and Sachkhand Express halt at the Ludhiana railway station. Regular buses (both, AC and Non-AC) are available from New Delhi and Chandigarh. Nearest airport is at Chandigarh, which is around 100 km from the institute.

### Resource Persons

The course will be taught by faculties/experts from the local and near-by academic institutions. Experts from the field will also share their experiences during this course.

### Eligibility

The young faculty of Engineering Colleges / University departments and PG Research scholars with civil engineering background can attend the course. The number of participants will be restricted to 30 as per the QIP norms. The certificate of participation will be awarded to the candidates who fulfil the attendance requirements and successfully completes the assignments/ the project work and secures 70% marks in the evaluation.

### Accommodation

A limited number of rooms with shared accommodation are available in the guest house at Guru Nanak Dev Engineering College campus on request on 'first-come first-serve basis'.

### Registration

There is no registration fee for the participants and TA/DA will be paid to the out station participants as per the norms. Since the seats are limited, the registration will be done on *first-come first-serve basis*. The registration process will be considered complete only when the registration form is received from the participant through a proper channel by **15<sup>th</sup> February, 2019**. However, candidates may send an advance copy through email, post or by hand.

### Organizing Committee

#### Patron

Dr. Sehajpal Singh, Principal  
Guru Nanak Dev Engineering College, Ludhiana

#### Advisors

Dr K.S. Gill, Professor and Head,  
Dr H.S. Rai, Professor and Dean (Testing & Consultancy),  
Dr Harpal Singh, Professor,  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

#### Coordinators

Dr Gurdeepak Singh and Dr Inderpreet Kaur  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

#### Faculty Coordinator

Dr Harvinder Singh  
Professor,  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

#### Correspondence

Please mail the signed copy of the registration form at the email id: **hs.gndec@gmail.com**  
Contact no.– 9855965901, 9878190300 (Coordinators)  
The hard copy can be addressed to the *Coordinator (STTP-16), Civil Engineering Department, Guru Nanak Dev Engineering College, Gill Road, Ludhiana-141006*.

### Guru Nanak Dev Engineering College, Ludhiana

**QIP sponsored  
Short Term Training Program  
On**

### *Analysis and Design of RC Buildings : Concepts and Practice*

**(February 19 - 23, 2019)**

### REGISTRATION FORM

Name:.....  
Designation:.....  
Department:.....  
Organization:.....  
Address:.....  
.....  
Tel./Mobile:.....  
E-mail:.....  
Academic Qualification with Specialization:.....  
.....  
Accommodation : Required/Not required  
.....  
Signature and Date: .....

### Sponsorship Certificate

The applicant is hereby sponsored and will be allowed to attend this course, if selected.

Date:.....

**Signature and Seal**



# Analysis and Design of RC Buildings: Concepts and Practice

5 days QIP sponsored STTP, February 19-23, 2019

## List of the participants

S. No.	Name	Mobile	e-mail ID	Signature
1	Amandeep Singh Gill	7087631549	Eggamangill @yahoo.com	
2	Amandeep Singh	9417398110	as.grodec @gmail.com	
3	Bhupinder Singh	7986050851	bswalia1122 @gmail.com	
4	Inderpreet Kaur	9878190300	inderdheena @gmail.com	
5	Mandeep Kaur	98550-59898	mandykhural 28@gmail.com	
6	Manvinder Kingra	25580 76170	Kingra, manvinder @gmail.com	
7	Sahibdeep Singh	2696100188	sahibdeep Singh @gmail.com	
8	Prabhjot Singh Pannu	9988991682	prabhjot.pannu @gmail.com	
9	Prashant Garg	9714312435	prashant.garg @gmail.com	
10	Pritpal Kaur	8427106043	pritspal.grodec @gmail.com	
11	Sukhwinder Singh	987655282	SHAMJI 19918 GMAIL.COM	
12	Sukhwinder Singh	98965-10717	Sukhwinder Singh@yahoo.com	
13	Tanpreet Singh	988899601	tanpreetgill @gmail.com	
14	Yuvraj Singh	9815830889	yuvraj_23@ yahoo.co.in	
15	Sarvesh Kumar	8283827985	sarveshkumar @pau.edu	
16	Satinder Kaur Khatra			
17	Ranjodh Singh	9872465866	ranjodh6051@ gmail.com	
18	Satnam Singh	9888213137	SATNAM SINGH 517@GMAIL.COM	
19	Jasveer Singh	9780145434	Jasveer Singh @gmail.com	

# Analysis and Design of RC Buildings: Concepts and Practice

5 days QIP sponsored STTP, February 19-23, 2019

List of the participants

		M.No.	EMAIL	SIGNATURE
20	Amit Duggal	99153 81300	Duggalomit262@gmail.com	Amit Duggal
21	Sandeep Singh	887884575	Sandeepsingh19117@gmail.com	Sand-S
22	Sadam Hussain	7780888997	Sadam Hussain 8757@gmail.com	Sadam
23	Sushant Garg Gupta	927991645	Sushantgupta1999@gmail.com	Sushant Gupta
24	Shoaib Nisar	2006488605	Shoaibnisar@gmail.com	Shoaib
25	Javeed Ahmed Khan	6005302502	Javeed395@gmail.com	Javeed Khan
26	Harvinder Singh	6728015856	hvi157357@gmail.com	Harvinder
27	Tandeep Singh	9914332279	Tandeep.Singh37@gmail.com	Tandeep
28	Jobandeep Singh	7888475019	Jobandeepsingh.handy@gmail.com	Jobandeep
29	Sushil Bhatia	9986711256	Sushilbhatia37493@gmail.com	Sushil Bhatia
30	Jaspreet Kaur	8559012386	JA28095@gmail.com	Jaspreet Kaur
31	Yogesh Kumar	9917581166	Yojice@gmail.com	YK
32	Harvinder Singh	9914300306	hvi1221@gmail.com	Harvinder
33	Gundeep Singh	9855965901	Krupa Gundeep Singh	Gundeep
34	K.S. GILL	987266114	Kuldeep Singh Gill	K.S. Gill
35	CHARNJEET SINGH	946586630	Charanjeet 1999@gmail.com	Charanjeet
36	Sandeep Kaur	959211232	Sandeepkaur 2409@gmail.com	Sandeep Kaur
37	Kavir Ahluwalia	946249571	Kavir Ahluwalia@gmail.com	Kavir

**Guru Nanak Dev Engineering College, Ludhiana**  
(An Autonomous College under UGC Act)

## **Certificate of Participation**

This certificate is awarded to

JAVEED AHMAD KHAN (GNDCE, LDH)

who participated in 5-day QIP sponsored Short Term Training Programme on

### **Analysis and Design of RC Building : Concepts and Practice**

organised by the Department of Civil Engineering  
from 19 - 23 February, 2019.

Faculty

Head of Department

Principal

Self



Guru Nanak Dev Engineering College Ludhiana  
Department of Civil Engineering

No CE 19/3406 dated 29/1/2019

Principal  
through Coordinator QJB 

Sub: regarding 5-day STTP in the department...

A 5-day STTP was approved on the topic 'Analysis and Design of RC Buildings: Concepts and Practice'. The department is planning to conduct the said STTP during period February 19-23, 2019. A copy of the brochure is enclosed herewith for your kind considerations.

It is therefore requested to allow the conduct of the program during the proposed dates and also allow the purchase of books to be given to the participants as reading material.

It is also requested to allow the organising committee to meet the other STTP related expenses as per the (sanction) letter no. RK38/2756 dated 13/11/2018.

  
Faculty Coordinator

✓  
Allowed/ Not allowed

  
Principal

Guru Nanak Dev Engineering College Ludhiana  
Department of Civil Engineering

No. CE-19/3550 dated 11/2/2019

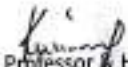
Principal

**Sub:** regarding nomination of faculty members for the 5-day STTP in the department...

The department is conducting an QIP sponsored STTP on the topic 'Analysis and Design of RC Buildings: Concepts and Practice' from February 19-23, 2019. This STTP is very much relevant to young faculty members of the department to impart them practical training and dedicated module to develop their skill in the structural designing of buildings. This will enable them to involve themselves and do the consultancy assignments coming through TCC with confidence.

A group of following faculty members is proposed to be nominated for the said course and it is therefore requested to allow them to participate in the STTP.

Amandeep Singh ✓  
Amandeep Singh ✓  
Bhupinder Singh ✓  
Charnjeet Singh ✓  
Gurbir Kaur  
Inderpreet Kaur ✓  
Mandeep Kaur ✓  
Manvinder Kinfra ✓  
Sahibdeep Singh ✓  
Sandeep Kaur ✓  
Sukhwinder Singh ✓  
Sukhwinder Singh ✓  
Tanpreet Singh ✓  
Yuvraj Singh ✓

  
Professor & Head

✓  
Allowed/ Not allowed

  
Principal

## Analysis and Design of RC buildings: Concepts and Practice



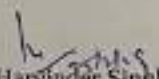
Figure 1: Group Photograph of Expert, Coordinator and participants for Course on Analysis and Design of RC Buildings: Concepts and Practice (19-23 February, 2019)



## **Analysis and Design of RC buildings: Concepts and Practice**

### **REPORT**

A five day short term training program on 'Analysis and Design of RC buildings: Concepts and Practice' was started at Guru Nanak Dev Engineering College, Ludhiana. It is being conducted by the Civil Engineering Department of the college under Quality Improvement Program of AICTE, Govt. of India with an aim to polish and develop the necessary structural design skills in the faculty and research scholars participating in the training program. Head of the department Professor K S Gill extended a warm welcome to the delegates and briefed the audience about the program and other associated activities. Faculty coordinator of the program Dr. Harvinder Singh informed that the outcome of the course will upgrade the skills of the participants to come up with better structural systems for new buildings coming up in the region and help the local community to build better and sustainable houses. Because, in the Ludhiana a lot of construction activities are coming up as the Smart city project being implemented by the Govt. In the city is moving toward its culmination. This becomes the need of the hour as the design is an ever evolving process and it is entirely different now-a-days than it was few decades back due to the better understanding of the material behavior and development of new materials. Nevertheless, basic aim of the structural design process remains the same, i.e. to build safe-durable structures but advances in the material technology helps greatly to reduce the associated costs. In its first day, the experts appraised the participants about the new developments in the geotechnical investigations and the minute details of the concrete production techniques and how it helps to the designers to plan their buildings to reduce the cost of the buildings without investing anything extra and ensured their durability and reduces the cost associated with the repair and maintenance.

  
Dr. Harvinder Singh  
Coordinator, STTP

Analysis and Design of RC buildings: Concepts and Practice

### COURSE OBJECTIVE

Wireless and optical communication has emerged as a principal theme in today's telecommunication industry. Innovations in optical fiber technology are revolutionizing the world communication by allowing direct transmission of high-speed signals over long distances. Optical fiber communication (OFC) has found numerous applications in Telecommunications, Local area networks, High precision material processing, Sensors, Medicine etc. It is one of the fastest growing technological markets because of relatively compact size of fiber, cost-effective, high efficiency and their stable operation. Wireless Communication is by measure, the fastest expanding segment of the communication industry. Broadband wireless access is supporting rates in excess of 100 Mbps. Subsequently this led to the development of 3G through Code Division Multiple Access (CDMA), Orthogonal Frequency Division Multiplexing (OFDM) and Multiple Input Multiple Output (MIMO). Representatives of industries and academia have started to look into the technological developments toward the next generation (5G), as the rollout of 4G mobile communication networks takes place. This course will address the latest trends and future challenges that must be met to develop high performance systems.

### COURSE CONTENTS

- Fundamentals of Wireless Communication
- Recent Advances in Wireless Communication
- Introduction to Cognitive Radio and Spectrum Sensing
- Software Defined Radio
- Intelligent Networks
- Fundamentals of Optical Communication
- WDM Techniques & Components
- Non Linear Effects in Optical Fibers
- Optical Networks-Overview and Recent Trends
- Future in Home Optical Network using PON
- Software Tools for Research
- Visit to Videcon Telecom Limited Ludhiana

### IMPORTANT DATES

Submission of Registration form by  
31.05.2019

Acceptance Notification by  
04.06.2019

DATE & VENUE FOR REGISTRATION  
10.06.2019 (SAB) at TCC Seminar Hall,  
GNDEC, Ludhiana

CONTACT DETAILS  
Dr. Baljeet Kaur

Assistant Professor, Department of Electronics &  
Communication Engineering

Guru Nanak Dev Engineering College  
GIE Park, Ludhiana.

Phone - 141006

E-mail: gndec.aca.10p@gmail.com  
Phone: 0161-5064768 (O)

### CHIEF PATRON

Dr. Sahjpal Singh (Principal)  
Guru Nanak Dev Engineering  
College, Ludhiana

### PATRON

Prof. Arvinder Sohra  
Hon'ble  
Department of Electronics &  
Communication Engineering

### ORGANISING COMMITTEE

Prof. Sandeep Thakur  
(ABVCIET, Pragsinagar)  
Prof. Anjali Bhatti  
(ABVCIET, Pragsinagar)  
Dr. Navneet Singh  
Dr. Balvinder Singh  
Dr. Manish Rattin  
Prof. Navneet Kaur  
Prof. Garpreet Kaur  
Prof. Chahat Jain  
Prof. Kuldip Singh  
Prof. Harinder Kaur Anand

Prof. Daljit Singh  
Prof. Suresh Kaur  
Prof. Tarandeep Singh  
Prof. Preeti Pansu  
Prof. Shivanshu Singh  
Prof. Hensharajit Singh  
Prof. Gurinder Singh  
Prof. Kinadep Kaur  
Prof. Shyva Kaur  
Prof. Harleen Kaur

### ONE WEEK TEQIP- III SPONSORED FACULTY DEVELOPMENT PROGRAMME

ON

"Enabling Technologies for  
Wireless and Optical  
Networks"

(10<sup>th</sup>-14<sup>th</sup> June, 2019)



TEQIP-III



Coordinator  
Dr. Baljeet Kaur

Co-Coordinator  
Prof. Harinder Kaur

Organized by  
Department of Electronics and  
Communication Engineering

Guru Nanak Dev Engineering College  
GIE Park, Ludhiana, Punjab - 141006  
E-mail: gndec.aca.10p@gmail.com  
Phone: 0161-5064768(O)

&  
Atal Bihari Vajpayee Govt. Institute of  
Engineering and Technology Pragsinagar,  
Shirsa (H.P) - 171222

#### ABOUT THE INSTITUTES

Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1958, has been striving persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-advanced society. In particular, and understanding the thirst for knowledge of students and quenching it in general, The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. Apart from offering various accredited graduate level B.Tech courses, the Institute also imparts thirteen Postgraduate courses both on regular and part time basis. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi.

Atal Bihari Vajpayee Government Institute of Engineering and Technology, a premier engineering institution was established in the year 2011 under the Society Registration Act by the Government of Himachal Pradesh. This institution is situated at Pragatnagar in beautiful apple growing valley on the bank of river Gm Ganga about 60 Km from Shimla. ABV-GIET offers technical education in three disciplines B.Tech., Polytechnic and ITI. Presently, CSE and ECE courses are offered in B.Tech. and CSE, ECE and EE in polytechnic. ITI is running five courses i.e. Electrical, Electronics, Fitter, Draughtsman and Motor Vehicle Mechanic.

#### ABOUT THE DEPARTMENTS

The Department of Electronics and Communication Engineering, established in 1981, is one of the most dynamic departments of Guru Nanak Dev Engineering College. It was the first diversification initiative by the college, 25 years after its establishment. The department is currently running UG and PG (NBA Accredited) courses in Electronics and Communication Engineering and has around 15 scholars enrolled for doctorate. Ever since its inception, the department has been the hub of academic excellence through some great teachers who have spread their wings all over the globe. The alumni of the department are not only excelling in India but also in the Silicon Valley and other hubs of Electronics Technology. They are at the forefront of the telecom revolution since the last 20 years. In the last two years, as a part of an academically autonomous system, the department has been taking numerous quality initiative including revamping of syllabi so that it is in tune with the outcome based system as proposed in the Washington Accord of Accreditation.

The department is exhibiting a very good pass percentage of students usually above 95% for UG/PG Courses. ECE Department is continuously maintaining strong international collaboration with outside world in form of joint research publications, editorial board memberships of reputed international journals.

The department of Electronics and Communication Engineering (ECE) at Atal Bihari Vajpayee Government Institute of Engineering and Technology offers a 4-year B.Tech programme in Electronics and Communication Engineering. The department has well experienced and dynamic faculty members.

#### REGISTRATION

There is no registration fee for participants from academic institutes. All short-listed candidates are required to confirm their participation by sending the scanned copy of duly filled Registration form by Email to [gnedec.ece.fdp@gmail.com](mailto:gnedec.ece.fdp@gmail.com), latest by 31.05.2019.

Shortlisting and confirmation of eligible candidates will be on a first come first served basis. Incomplete application forms will not be entertained.

#### ELIGIBILITY

Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course. Applications from various fields like ECE/EE/CSE/IT/Applied science and other related disciplines are invited.

Course Completion Certificate will be given if the attendance criterion is satisfied.

#### ACCOMMODATION

Accommodation will be provided in the students Hostels or Guest House on sharing basis. No TADA will be paid.

### ONE WEEK TEQIP- III SPONSORED FACULTY DEVELOPMENT PROGRAMME ON

### "Enabling Technologies for Wireless and Optical Networks"

(10<sup>th</sup> - 14<sup>th</sup> June, 2019)

#### REGISTRATION FORM

Name (BLOCK LETTERS): \_\_\_\_\_

Gender: \_\_\_\_\_

Qualification: \_\_\_\_\_

Designation/Department: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Accommodation in Campus: YES / NO \_\_\_\_\_

Signature of Participant

Sponsorship & Signature of  
Head of the College / Institute (with date & seal)

(Note: By signing above, Head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)



## Report of FDP

(TEQIP-III sponsored one week faculty development programme)

Name: "Enabling Technologies for Wireless and Optical Networks"

Date: 10<sup>th</sup> – 15<sup>th</sup> June, 2019

Venue: Testing and Consultancy seminar Hall

### Course content:

- Fundamentals of Wireless Communication
- Recent advances in wireless communication
- Introduction to Cognitive Radio and spectrum sensing
- Software Defined Radio
- Intelligent networks
- Necessity of optical communication and
- WDM/DWDM Techniques & Components
- Non Linear Effects in Optical fibers
- Optical networks-Overview and Recent Developments
- Future in home optical network using POF
- Software tools for research
- Visit to Videocon Telecom Limited Ludhiana

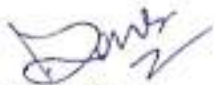
Nothing in the world gives us more power and confidence than having information. The ability to communicate information is essential to achieve the successful advancement of humankind. In today's world the most vital source of transferring information worldwide are optical and wireless communication media. So keeping in view the same, this FDP was organized in Twinning with Atal Bihari Vajpayee Govt. institute of engineering and technology Pragatinagar, Shimla.

The FDP was planned for six days from 10<sup>th</sup> to 15<sup>th</sup> june. The programme was divided into 20 + technical sessions, which were engaged by the guest speakers from reputed institutes like IIT ropar, iit jammu, nit delhi, nit kurukshetra, nitttr Chandigarh besides neighbouring institutes like thapar , gndu , and Punjabi university,patiala to give insight about the trends in this field. The main topics covered in the course were Fundamentals of Wireless and optical Communication, Recent Advances in Wireless and optical networks, SDR, Optical Computing with Network of Coupled Lasers, wireless sensor networks, MIMO and Cognitive Radio and spectrum sensing.

Lab sessions were also scheduled to give the idea about latest research software tools to the participants, a field visit to Videocon telecom limited was also a one of the impactful session of this course.

Participants from many institutes of repute, host institutes and other institutes like NIT jalandhar, Punjabi University Patiala, SLIET Longowal, LPU Phagwara, LGC Chownkimaan, MIMIT Malout, KCET Amritsar, HIET Shahpur, Himachal Pradesh.

Course coordinator



Dr. Baljit Kaur

Course co-coordinator





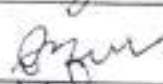
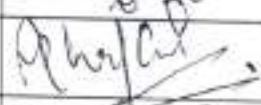
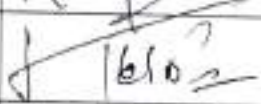


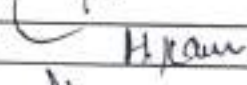

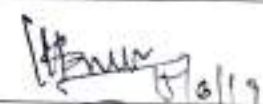
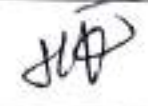
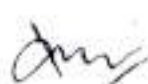
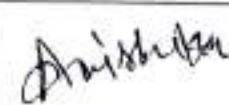
Prof. Harjinder Kaur

**One week TEQIP-III sponsored Faculty Development Programme on  
 "Enabling Technologies for Wireless and Optical Networks"  
 June 10-15, 2019**

**Organized by Department of Electronics and Communication Engineering  
 Guru Nanak Dev Engineering College, Ludhiana**


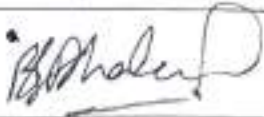
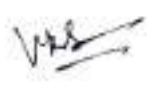
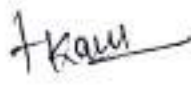
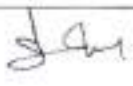

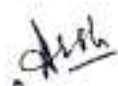
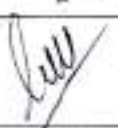




**① / Certificate Receiving**

Date 15-06-2019

S.No.	Name	Institute	Signature of Participant
✓ 1	Dr. Vikas Singla	MIMIT, Malout	
2	Gurinder Singh	GNDEC, Ludhiana	
3	Dr. Harsimranjit Singh Gill	GNDEC, Ludhiana	
✓ 4	Monika Rani	PTU, Jalandhar	
✓ 5	Kanwaljeet Singh	LPU, Phagwara	
6	Sukhwinder Singh	GNDEC, Ludhiana	
7	Karan Bhalla	GNDEC, Ludhiana	
8	Harminder Kaur	GNDEC, Ludhiana	
✓ 9	Loveleen Kaur	Khalsa College of Engg. & Technology, Amritsar	
✓ 10	Harminder Kaur	Khalsa College of Engg. & Technology, Amritsar	
11	Harleen Kaur	GNDEC, Ludhiana	
✓ 12	Akanksha Sharma	ABVGIET, Pragati Nagar, Shimla	
✓ 13	Anshika Salaria	ABVGIET, Pragati Nagar, Shimla	



✓ 14	Nivedita Kashyap	ABVGIET, Pragati Nagar, Shimla	Nived
✓ 15	Anjali Bharti	ABVGIET, Pragati Nagar, Shimla	Anjali
✓ 16	Navdeep Sharma	ABVGIET, Pragati Nagar, Shimla	Nav
✓ 17	Sidharth Pandit	HIET, Shahpur	Sidharth
✓ 18	Gurjot Singh	LPU, Phagwara	Gurjot
19	Kuldeepak Singh	GNDEC, Ludhiana	Kul
20	Daljit Singh	GNDEC, Ludhiana	Dal
21	Kuldeep Kaur	GNDEC, Ludhiana	Kul
22	Preeti Pannu	GNDEC, Ludhiana	Preeti
23	Simranjit Kaur	GNDEC, Ludhiana	Sim
24	Gurpurneet Kaur	GNDEC, Ludhiana	Gur
25	Kirandeep Kaur	GNDEC, Ludhiana	Kir
✓ 26	Harmandar Kaur	GNDU, RC, Jalandhar	Har
✓ 27	Dr. Kulwinder Singh Malhi	Punjabi University, Patiala	Kul
28	Tarandeep Singh	GNDEC, Ludhiana	Tar

29	Dr. Balwinder Raj	NIT, Jalandhar	B-R
30	Gagandeep Kaur	GNDEC, Ludhiana	
31	Dr. Balwinder Singh Dhaliwal	GNDEC, Ludhiana	
32	Dr. Vijay Kumar Samyal	MIMIT, Malout	
33	Harmandeep Kaur	LGC-Polytechnic, Chaukimann	
34	Dr. Narwant Singh Grewal	GNDEC, Ludhiana	
35	Bhawna	GNDEC, Ludhiana	
36	Arshdeep Kaur	GNDEC, Ludhiana	
37	Gagandeep Kaur Gill	GNDEC, Ludhiana	
38	Harleen Kaur	GNDEC, Ludhiana (EE)	
39	Daljeet Singh	GNDEC, Ludhiana (CSE)	
40	Dr. Baljeet Kaur	(Coordinator) GNDEC, Ludhiana	
41	Harminder Kaur	(Co-coordinator) GNDEC, Ludhiana	

(An Autonomous College Under UGC Act.)

Date: 03/06/2019

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3-6-17

 HOD (ECE) & TEQIP-III Coordinator

Reference to your letter no. 99 on 23.4.2019, Department of Electronics & Communication Engineering is permitted to organize one week TEQIP-III sponsored Faculty Development Programme on "Enabling Technologies for Wireless and Optical Networks" from 10.06.2019 to 15.06.2019. As the FDP is extended for one more day (15.06.2019), so you are requested to

Final

~~Heelwa~~  
~~3/6/19~~

Allowed  
Sch

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Tu. B.K.  
1  
Reaction