ANNUAL QUALITY ASSURANCE REPORT

2016-2017

National Assessment and Accreditation Council

Bangalore-560 072

Submitted by



Guru Nanak Dev Engineering College

Ludhiana

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The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC.

Part – A

I. Details of the Institution

1.1 Name of the Institution	Guru Nanak Dev Engineering College
1.2 Address Line 1	Gill Park
Address Line 2	Gill Road
City/Town	Ludhiana
0.1g/ 1.5 m.1	
State	Punjab
Pin Code	141006
Institution e-mail address	director@gndec.ac.in
Contact Nos.	9855400448
Name of the Head of the Institution	Dr.Manohar Singh Saini n:
Tel. No. with STD Code:	0161-2502700
Mobile:	99144-25025

Name of the IQAC Co-ordinator:	Dr. Harwinde	er Singh
Mobile:	9815188044	
IQAC e-mail address:	harwin75@g	ndec.ac.in
1.3 NAAC Track ID (For ex. MHCO	GN 18879)	PBCOGN19927
1.4 NAAC Executive Committee No. & Date:		EC(SC)/06/A&A/102
1.5 Website address:		www.gndec.ac.in
Web-link of the AQAR:		www.gndec.ac.in/AQAR2016-17.doc
1.6 Accreditation Details		

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	А	3.10	2015	April 30,2020

31/12/2015 1.7 Date of Establishment of IQAC:

1.8 AQAR for the year

2016-17

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC

Submitted vide Letter no.RK-50A/1501 dated 18.8.2016

1.10 Institutional Status			
University S	tate Central	Deemed Priva	te
Affiliated College Y	Yes V No		
Constituent College Y	Yes No V		
Autonomous college of UGC Y	Yes V No		
Regulatory Agency approved Institut	tion Yes 🗸	No	
Type of Institution Co-education	Men Men	Women	
Urban	∨ Rural	Tribal	
Financial Status Grant-in-aid	UGC 2(f)	V UGC 12B ✓	
Grant-in-aid +	Self Financing V	Totally Self-financing	
1.11 Type of Faculty/Programme		J L	
1.11 Type of Faculty/11ogramme			
Arts Science	Commerce Lav	w PEI (Phys Ed	u)
TEI (Edu) Engineering	V Health Science	Management	V
Others (Specify)	mputer Applications		
1.12 Name of the Affiliating University	(tor the Colleges)	IKG Punjab Technical Univ Jalandhar	versity,
1.13 Special status conferred by Central	/ State Government U	JGC/CSIR/DST/DBT/ICM	IR etc
Autonomy by State/Central Govt. /	University UGC		
University with Potential for Excell	ence NA	UGC-CPE	NA
DST Star Scheme	NA	UGC-CE	NA
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	NA		YES

UGC-Special Assistance Programme		DST-FIST	
UGC-Innovative PG programmes	NA	Any other (Specify)	TEQIP III by MHRD, N.Delhi
UGC-COP Programmes	NA		N.Dellii
2. IQAC Composition and Activit	<u>cies</u>		
2.1 No. of Teachers	7		
2.2 No. of Administrative/Technical staff	1		
2.3 No. of students	0		
2.4 No. of Management representatives	1		
2.5 No. of Alumni	2		
2. 6 No. of any other stakeholder and	2		
Community representatives			
2.7 No. of Employers/ Industrialists	1		
2.8 No. of other External Experts	1		
2.9 Total No. of members	15		
2.10 No. of IQAC meetings held	1		
2.11 No. of meetings with various stakeholders:	No.1	Faculty V	
Non-Teaching Staff Students $\sqrt{}$	Alumni	V Others	
2.12 Has IQAC received any funding from UGC d	luring the yea	r? Yes No V	
If yes, mention the amount			

2.13 Seminars and Conferences (only quality related)

(i) No. of Semin	nars/C	onferences/ Work	shop	os/Symposia	organ	ized by	the IQ	QAC	
Total Nos.	1	International		National	1	State		Institution Level	0
(ii) Themes	Qua	ality Initiatives in	n Te	chnical Edu	ıcatio	nal Inst	itutio	ns	

2.14 Significant Activities & Contribution made by IQAC

Electronics and Communication Engineering	Two day workshop on Industry Institute Interaction	3-4 August,2016
Civil Engineering	Solid Waste Management in Indian Cities- Issues and Concerns	23-27 August,2016
Mechanical Engineering	Workshop on "Design of Machine Elements using Nastran Software"	16-17 September,2016
Electronics and Communication Engineering	Seminar on "Make in India: Challenges in Manufacturing and Engineering Industry"	23 September,2016
Production Engineering	Workshop on Field Applications of DSC for research scholars	22-23 September,2016
Mechanical Engineering	Seminar on "Recent Trends in Integrated Automation"	30th September,2016
Production Engineering	National Conference on Production Engineering (COPE)	7-8 October,2016
Institutional	Workshop on Word,Excel and Power point	18-22 October,2016
Computer Science and Engineering	Workshop on Insights of Data Science	21-22 October,2016
Mechanical Engineering	International seminar on Energy & Environmental Issues- Trends and Thoughts	21 November,2016

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

emancement and	the outcome achieved by the end of the year *
Plan of	Achievements
Action	
To upgrade modern methods of teaching and learning	 LCD Projectors are being used in class rooms/laboratories. Demonstration of computer practical's has been done through LCD projector. To sustain and improve the overall performance of the institute on National and International level. Adopted best possible practices at the institute for teaching and research. Improved communication skills through Finishing Schools. Students opted for entrepreneurship after getting training from Science and Technology Entrepreneurship's Park, GNDEC, Ludhiana. Faculty vacant posts are filled on requirement basis. Increased sponsored research and consulting projects. 110 Faculty members published quality research papers in referred journals. Encouraged students to undergo overseas exchange programme. Few students attended a semester training in abroad. 20 Short courses and workshops/ seminars/ conferences by various departments were organized. The infrastructural facilities in the various departments of the institute and ensure optimum utilization of them.

^{*} Attach the Academic Calendar of the year as Annexure. Refer Annexure-A

2.16 Whether the AQAR was placed in statutory body	Yes V No
Management Syndicate	Any other body V
Provide the details of the action taken	
Placed in Academic Council meeting held on 12	2.8.2017.

Part – B

Criterion - I

I. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	03	0	0	0
PG	13	0	0	0
UG	07	0	0	0
Others	02	0	0	0
Total	25	0	0	0
Interdisciplinary	0	0	0	0
Innovative	0	0	0	0

- 1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options
 - (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	UG-7, PG(FT)-10,PG(PT)-5
Trimester	NIL
Annual	NIL

1.3 Feedback from stakeholders* (On all aspects)	Alumni	Parents V Employers V Students V				
Mode of feedback :	Online	✓ Manual ✓ Co-operating schools (for PEI)				
*Please provide an analysis of the fe 1.4 Whether there is any revision/		the Annexure regulation or syllabi, if yes, mention their salient aspects.				
Yes, Industrial Training, Departmental Elective, Open Elective, Project Work Major and Minor, Core Subjects, Communication, Human Values Professional Ethics (HVPE).						
New syllabus for B.Tech. Batch 2017 is being implemented.						

1.5 Any new Department/Centre introduced during the year. If yes, give details.

College is going to apply for Atal Incubation Centre.

Criterion - II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent/regular faculty

Total	Asst. Professors	Associate Professors	Professors	Others
223	170	22	31	0

2.2 No. of permanent/regular faculty with Ph.D.

53

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

*Asst.		Associa	ite	*Profe	essors	Others	;	Total	
Profes	sors	Profess	ors*						
R	V	R	V	R	V	R	V	R	V
11	5	3	-	10	3	-	-	24	08

*During the period in question, 9 Associate Professors have been promoted as Professors and two Assistant Professors as Associate Professors under CAS.

2.4 No. of Guest and Visiting faculty and Temporary faculty

0

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	32	13	5
Presented papers	32	13	5
Resource Persons	01	34	16

- 2.6 Innovative processes adopted by the institution in Teaching and Learning:
 - ➤ Additions of multiple choice questions in question papers
 - > Special arrangement of classes on Aptitude and Comm. skills
 - > Students Feedback system, Alumni Feedback, Employer feedback, Graduate Feedback have been made online.
- 2.7 Total No. of actual teaching days during this academic year

90

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

Double Valuation as well as online multiple choice system, Bar coding

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

48

2.10 Average percentage of attendance of students

85

2.11 Course/Programme wise Distribution of pass percentage:

Title of the Programme	Total no. of students	Division					
	appeared	Distinction %	I %	II %	III %	Pass %	
B.Tech. Elect. Engg.	110	26.3	60.9	4.5	00.9	66.3	
B.Tech. CSE	189	47.6	79.3	1.05	0	80.4	
B.Tech. Mech.Engg.	227	45.4	74.9	0	0	74.9	
B.Tech. Civil Engg.	222	40	80	0	0	80	
B.Tech. Production Engg.	51	23.52	76.47	3.92	0	80.39	
B.Tech. IT	102	33.3	85.29	0	0	85.29	
B.Tech. ECE	113	45.13	80.53	0	0	80.53	
MBA	55	69	72.72	18.18	0	90.90	
MCA	30	19	100	0	0	100	

The figures depicted above are for the academic year 2016-17 (Pass-out in May 2017) only

- 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:
 - Monitors and evaluates the Teaching and learning processes by way of conducting the periodical meetings of BOS etc.
 - Review of Evaluation system: HODs present performance before Head of Institution about their respective department
 - COE give presentation with contents about the conduct, evaluation and result.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	08
UGC – Faculty Improvement Programme	-
HRD programmes	01
Orientation programmes	04
Faculty exchange programme	-
Staff training conducted by the university	02
Staff training conducted by other institutions	05
Summer / Winter schools, Workshops, etc.	08
Others	29

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	96	21	-	128
Technical Staff	23	03	-	15

Criterion - III

3. Research, Consultancy and Extension

- 3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution
 - > Each department has a Departmental research committee, which convene periodical meetings to review synopsis presented by Masters' students.
 - > Encouraging the faculty to pursue higher education. For which they are reimbursed Tuition fee etc.
 - Encouraging faculty to publish quality research papers in referred Journals and conferences etc.
 - Categorization of the projects undertaken by the final year students into three categories: Industry based, Research based and Automation based.
 - QEEE (Quality Enhancement in Engineering Education) Lectures delivered in the institute in almost all the branches of UG
 - > Local Chapter of NPTEL has been started in Institution.
 - ➤ ICT based research oriented course on "Open Source Technology" in collaboration with NITTTR, Chandigarh.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	2	8	10	3
Outlay in Rs. Lakhs	70	130	200	70

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	2	3	5	3
Outlay in Rs. Lakhs	1	2	3	1.5

3.4 Details on research publications

	International	National	Others
Peer Review Journals	105	06	-
Non-Peer Review Journals	1	-	-
e-Journals	8	-	-
Conference proceedings	76	20	0

3.5 Details on Impact factor of publications:

EE Range	0.5-3.8	Average	1.780	h-index	10	Nos. in SCOPUS	48
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3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (Rs. in Lakhs)	Received (Rs. in Lakhs)
Major projects	3	Department of Atomic Energy, DST, SERB, IEI, UGC	200	200
Minor Projects	1.5	IEI	2	2
Interdisciplinary Projects	0	0	0	0
Industry sponsored	-	Quadrant Televentures Limited, Texas Instruments Innovation Centre	5	5
Projects sponsored by the University/ College	0.6	Own funds	0.50	0.50
Students research projects (other than compulsory by the University)	1	IEI	2	2
Any other(Specify)				
Total				

3.7 No. of books published	i) With ISBN No.	7	Chapters	in Edited Books	7
3.8 No. of University Depar	ii) Without ISBN No.				
	UGC-SAP 0 DPE 0	CAS	0	DST-FIST DBT Scheme/funds	v s 0
_	Autonomy $\sqrt{}$ INSPIRE $\sqrt{}$	CPE CE	0	DBT Star Scheme Any Other (specify	sanctioned
3.10 Revenue generated thr	ough consultancy		08,719		by MHRD, New

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	1	1	0	0	0
Sponsoring	0		0	0	0
agencies		DST,TEQIP,IGI			

36

3.12 No. of faculty served as experts, chairpersons or resource persons 25									
3.13 No. of collaborations International 2 National 9 Any other 2]	
3.14 No. of linkages created during this year 7								_	
3.15 Total budget for research	arch for curren	nt year in	ı lakhs:						
From Funding agency	96 Lakh	From	Managemen	t of Ur	niversity/0	College	50 Lakh	າ	
Total	146 Lakh	_]							
	140 Lakii	_							
3.16 No. of patents receiv	ed this year	Type	of Patent			Numl	ner .	7	
•	•	Nationa		Appl	ied	4	<u> </u>	_	
		Nationa	11	Gran		0			
		Internat	tional	Appl Gran		0			
			. 1. 1	Appl		0			
		Comme	ercialised	Granted		0			
3.17 No. of research award of the institute in the Total Internation 8 1	year al National 3	State 4	University 0	Dist 0	College 0	-	38		
3.18 No. of faculty from the and students register			PII.D. Guides	8				」 ¬	
3.19 No. of Ph.D. awarded (Awarded by State Un 3.20 No. of Research scho	iv.)			wly en	12	xisting o	91 nes)		
JRF 1	SRF	2	Project Fe			Any oth			
3.21 No. of students Partic	J		110jeet 1 e.			7 my our		NIL	
5.21 Tvo. of students I artic	apatea in 1455	c vents.				7			
			Universit	y level	247	S	tate level		
			National 1	level		Interna	tional lev	el 0	
3.22 No. of students partic	cipated in NCO	C events	:						
			Universi	ty leve	1 2		State lev	el 56	õ
			National	level	1	Interna	ational le	vel 0	

3.23 No. of Awards won in NS	SS:						
	University level 1 State level						
	National level International level						
3.24 No. of Awards won in No	CC:						
	University level State level 15						
	National level International level						
3.25 No. of Extension activitie	s organized						
University forum	College forum 15						
NCC 1	NSS 5 Any other 35						
Responsibility							
* *	Organising Medical Check-up camps and Blood Donation Campus Clean and Green Program in the campus						
* *	Organised Experts lectures on health issues						
*	Organised religious program in College Gurudwara Sahib						
*	NCC Day in November 2016 was celebrated Mini Marathon was conducted in College campus to create						
*	awareness about eco-friendly system in Jan 2017 Third International Yoga Day was celebrated on 21 st June, 2017. Combined Annual Training Camp for NCC Cadets of State of ten days from 7 th July to 16 th July, 2016 First Aid Awareness was conducted by Police Department in Jan 2017.						

Criterion - IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	67 Acres	0	Internal Resources	67 Acres
Class rooms	61	4	Do	65
Laboratories	62	2	Do	64
Seminar Halls	5	1	Do	6
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	20	18	AICTE,DST	38
Value of the equipment purchased during the year (Rs. in Lakhs)	-	20	-	20
Others	-	Open Air Theatre with capacity of 5000	Internal Resources	1
	4	New Hostel 7 Storey (Boys)	AICTE grants	1
	-	FM Radio Station for Community Development	Internal Resources	1

4.2 Computerization of administration and library

- All the computers in the office have internet facility both wired and Wi-Fi.
- > Automation of library administration is under the process
- > The students and faculty can also take photocopies of the books and journals from Central Library.
- > The Library is Wi-Fi.

4.3 Library services:

	Exis	sting	Newly	added	Total		
	No.	Value	No.	Value	No.	Value	
Text Books	38739	7775858	0	0	38739	7775858	
Books	48334	17052260	862	530585	49196	17583145	
Reference Books	4037	1211000	5	23000	4044	1234000	
e-Books	518	523398	323	215953	841	739351	
Journals	135	353593	140	370115	140	370115	
e-Journals	19987	3228521	19739	4011509	19739	4011509	
Digital Database	3	6404000	1	85000	4	6489000	
CD & Video	1222	NIL	22	NIL	1244	NIL	
Others (specify)	0	0	0	0	0	0	

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsin g Centres	Computer Centres	Office	Depart- ments	Others
Existing	1150	29	50 Mbps	Every where in the campus	1	Yes	Yes	Hostels
Added	50	2	950 Mbps	Do	1	Upgra ding	Upgradin g	Upgradin g
Total	1200	31	1 Gbps	Everywh ere	1	Upgra dation in proces s	Upgradat ion in process	Upgradat ion in process

- 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)
 - > Internet Connectivity increased to 1 Gbps.
 - > Students are encouraged to use internet for their project work.
 - We have ERP Software in the Institution for e-Governance of students, faculty and staff.

4.6 Amount spent on maintenance in lakhs:

i) ICT	2.50
ii) Campus Infrastructure and facilities	50.00
iii) Equipments	7.00
iv) Others	18.54
Total:	78.04

Criterion - V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Canteen

Clean Hygienic cafeteria 4 nos. is available for both students and faculty providing nutritious food for supporting studying in shift system

Stationery Shop

One Stationery Shop is available in campus. The basic requirements like stationeries, mobile chargers, books are kept for sales in college premises.

Others

- > Printed information available in college calendar/college website
- ➤ Information also communicated to students regularly through HOD/Advisors
- Providing necessary information to hostellers through Hand book.
- Publishing College magazine every year to highlight students' skills in the area of short stories, writing, poetry, columns on important current events etc.
- 5.2 Efforts made by the institution for tracking the progression
 - In all the departments, advisory classes are held periodically to keep close touch in between students and Advisors, in which students can share their views, problems with their Advisor. Advisors can take steps to redress their grievances. Weak students are identified in advisory and special classes are arranged to help them academically.
 - Regular check of attendance and academic excellence.
 - > The institution has ERP Software for e-governance
 - > Suggestions and feedback are the index to understand the progression of students.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
3811	342	1	145

*Pursuing their Ph.D with Supervisors of GNDEC

Last Year							Т	his Yea	ır		
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged (Others)	Total
827	126	-	37	77	1067	749	80	1	17	49	895

Men

No	%
716	80

No	%
179	20

(b) No. of students outside the state

97

(c) No. of international students

	No	%		•	No	%
Men	0	0	Women		0	0
Den	nand ra	ntio	100%	Dropou	ıt 6.42	2%

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Special classes/Expert lectures are arranged from time to time in which experts on different topics are invited from renowned institutions, organisations, companies to enhance the communication skill, general knowledge, how to crack competitive examinations for students, enabling them to meet the requirement of their curricula/competitive examinations.

No.	of s	tudent	ts be	nefic	iari	es

125

5.5 No. of students qualified in these examinations

NET	0	SET/SLET	0	GATE	95	CAT	8
IAS/IPS etc	0	State PSC	0	UPSC	0	Others	30

5.6 Details of student counselling and career guidance

No. of students benefitted

448

5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
30	613	444	04

5.8 Details of gender sensitization programmes

Guest lecture are arranged with high profiled women from various professions and walk of life on issues faced by women at home, institutions of higher learning and workplaces.

5.9.1	No. of students participated in Sports, Games	and other events					
	State/ University level 239 National le	evel 28 Inter	national level 6				
	No. of students participated in cultural events						
	State/ University level 147 National le	evel 2 Inter	national level				
5.9.2	No. of medals /awards won by students in Spe	orts, Games and other	events				
Sports: State/ University level 121 National level 1 International le							
Cultural	l: State/ University level 6 National l	evel 1 Inte	rnational level 0				
5.10 Schola	arships and Financial Support						
		Number of students	Amount				
	Financial support from institution	-	-				
	Financial support from government	370	7400000				
	Financial support from other sources	-	-				
	Number of students who received International/ National recognitions	-	-				

5.11	Student organised / initiative	S				
Fairs	: State/ University level	2	National level	0	International level 0	
Exhib	oition: State/ University level	2	National level	0	International level 0	
5.12	No. of social initiatives under	rtaken by	the students	29		
5.13 I	Major grievances of students (i	f any) red	dressed:	NIL		_

Criterion - VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision

Realisation of glimpses of a Golden India in the real (rural) India which lives and abounds in its villages. GNDEC will excel nationally and distinguish itself as a recognised pre-eminent leader to serve this 70% brotherhood through its socio-economic upliftment by exposure of the have-nots to Engineering and Technology thereby grooming them as technically competent and intellectually vital graduates through practically focused quality learning experiences, and thus assuring productive careers for them.

Mission

- Upliftment of Rural Students through technical education
- Respond to local societal needs by developing selected "targeted research projects"
- Quality training programs in need based modern technology
- To maintain state-of-the-art infrastructure in laboratories
- To promote culture of self-employment
- To impart non-formal education to unemployed youth
- To inculcate moral, ethical, spiritual values in education at all levels

6.2 Does the Institu	ition has a manas	rement Intormati	on System
----------------------	-------------------	------------------	-----------

YES

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

For Curriculum Development, each department has its Board of Studies, which comprises of industrialists, subject experts, and faculty.

6.3.2 Teaching and Learning

- Modern teaching methods like LCD projectors and PPT methods is in place.
- > Students are exposed to submit their assignments, projects, feedback etc.
- > Students are encouraged to participate in group discussions, quiz as a mean of enhancing knowledge.
- Learning is encouraged by organising quiz, other activities.
- > Full transparency in teaching evaluation process is in place.
- > Industrial Training consisting of 6 weeks and one semester is part of curricula
- Adopted the industry from fourth semester onwards is a part of curricula has been initiated in some branches.

6.3.3 Examination and Evaluation

- Continuous internal assessment system. Three sessional examinations are conducted in a semester. Then End Semester takes place.
- > Review of Results Deptt. wise to suggest Remedial coaching to improve results.
- Periodical review of examination system
- Display of Final Answer sheets to students
- Uploading of provisional result in individual login of students as well as Redressal mechanism for students results

6.3.4 Research and Development

- ➤ Efforts are made to create research environment to engage faculty in research and mobilization of research grants.
- Ph.D programme being offered under QIP in Civil, Electrical and Mechanical Branches.
- Faculty is free to apply for projects from various funding agencies like AICTE, DST and UGC, IEI etc.
- > Staff is encouraged to participate in Seminar, FDP, STTP, Workshops to update their knowledge with latest developments.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- ➤ To convey to information to concerned, various means like internet, Wi-Fi, display board are used.
- Automation of library is under process.
- New books, e-journals, hardbound journals are added every year.
- Administrative procedure is computerised.

6.3.6	Human	Resource	Management

- Staff and students are facilitated to organise and participate in social and academic activities of college
- ➤ Ten faculty members interacted with outside the country for research training and encouraging international students to come in India for their higher studies

6.3.7 Faculty and Staff recruitment

- ➤ The appointments of faculty and staff is strictly as per AICTE/State Govt. norms regarding qualifications and experience.
- > Various positions are filled from time to time.
- Necessary supporting staff is recruited as per need.

6.3.8	Industry	Interaction /	Collaboration

11			

6.3.9 Admission of Students

The admissions are made centralised by IKG Punjab Technical University on the merit basis of JEE.

6.4 Welfare schemes for

Teaching	As per AICTE norms
Non teaching	As per State Govt. norms
Students	As per Govt. Norms

6.5 Total corpus fund generated

10 Crores

6.6 Whether annual financial audit has been done

Yes V No

6.7 Whether Academic and Administrative Audit (AAA) have been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	University, NAAC,NBA	Yes	Institute's Committee
Administrative	Yes	University, NAAC	Yes	Nankana Sahib Education Trust

6.8 Does the University/ Autonomous College declare results within 30 days?				
For UG Programmes Yes V No				
For PG Programmes Yes No				
6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?				
 Bar coding is in place. Evaluation of system is done periodical. Provisional result is conveyed to students through their respective login ID. Display of answer sheets Remedial mechanism available for redressal student's grievance related to their end semester examination answer sheets. 				
6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent college				
The University is encouraging its affiliating College to get autonomy from UGC for effective working in limited scope as compare to large peripheral.				
6.11 Activities and support from the Alumni Association				
 Alumni Association meet is organised every year in addition to celebration of Golden and Silver Jubilees (Batch wise) It is extending technical help to students. Members of BOG of College, Academic Council, Board of Studies Financial aid for R&D, Scholarships etc 				
 The parents are extending financial cooperation in research etc. Last year a new Research award with title B.S.Pabla Award has been introduced by the Alumni to encourage UG/PG/Ph.D researchers. Extend full cooperation in conduct of training, expert lectures, placement, social awareness etc. Sponsored books for Central Library 				
6.13 Development programmes for support staff				
Supporting staff are encouraged to go for training takes place at various places for updation.				
6.14 Initiatives taken by the institution to make the campus eco-friendly				
 Tree Plantation, E-waste as per Govt. policy, discourage of polythene bags Solar system is in place 				

Water Harvesting is in process.

Criterion – VII

7. Innovations and Best Practices

- 7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.
 - > Day of National and International importance are celebrated
 - CCTV cameras have been installed within and around the campus for security purposes
 - Educational tours
 - Examination Reforms
- 7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

Based upon the plan, following are the achievements:-

- ❖ Major /Minor projects to the tune of Rs. 2.0 Crores have been received.
- ❖ Faculty published 216 quality research papers in National/International Journals and Conferences
- ❖ Faculty generated consultancy worth Rs. 1.2 Crore
- Equipments worth Rs. 72.04 Lakh were purchased
- ❖ About 80 students secured various awards and recognitions
- ❖ Various activities 10 in numbers like STTP, Workshops, Conferences, Seminars were organised at Institutional level.
- Financial support worth Rs. 3.5 Crores was received from various funding agencies in the form of scholarships.
- 7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)
 - Two way visibility of attendance.
 - Inclusion of student in evaluation
- 7.4 Contribution to environmental awareness / protection
 - Environmental Awareness Programme are organised for students as well as faculty from time to time.
 - Separate cell i.e. Ground & Gardening exists for protection of environment and keep the trees alive and green and to feed them with manure.
 - **&** E-waste is followed as per Govt. policy.
 - Solar system is in place in the form of street lights etc.
 - Dustbins have been kept at all prominent places to keep environment ecofriendly.
 - Water harvesting system is in process.
 - No vehicles is allowed to enter in academic area.

- 7.5 Whether environmental audit was conducted? Yes V No
- 7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

Strength

- Locational advantage since located in industrial hub of Punjab.
- 70% seats are reserved for underprivileged (Rural) section of the society
- All seven UG courses accredited through IEI. The institution is NAAC 'A' grade and TCS accredited. Four PG programmes i.e Structural, Production, ECE, GeoTech. Engg has been accredited by NBA under TIER-1.
- Conferment of autonomous status from UGC.
- Only Govt. Aided College of Punjab running 15 PG programmes in engineering.
- MoU signed with international Universities by different departments.
- Only government aided engineering college of Punjab running successfully part time post graduate courses for field engineers/working
- teachers since 1980
- Apart from central library every department has its own departmental library
- Apart from central computer centre every department has a separate computational lab
- EDUSAT facility
- All faculty members are provided with Laptop, computer, internet connectivity at individual office.
- Grants received from AICTE /DST and other agencies against research project/Seminar/travel
- Internet connectivity at faculty residences and hostels also
- An independent Testing and Consultancy cell with an annual turnover of around one crore
- Availability of power back up and Wi-Fi facility to the whole college including hostel
- Among first six institutes of the country where STEP was started and among few institutions in the country where self sustaining STEP is running successfully
- Excellent sports facility & excellent performance in Sport activities under PTU.
- Registered Alumni Association with many branches existing around the globe and an alumni home in the campus
- Surveys conducted by different National magazines like Outlook, CSR,
 India Today etc. repeatedly placed the college among top ranking

Weakness

- Input of low merit students at the entry level due to mission of the college
- (70% seats reserved for rural students)
- Needs Refurbishment of washrooms and replacement of Electrical fittings and appliances
- Limited specific Laboratories for PG Programme
- Needs Separate Faculty Cadre for PG Courses
- Needs New titles in print as well as digital form in departmental and central library
- Lack of Industry- Institute interaction in a purposeful manner.
- Inadequate mechanism of industrial exposure for faculty and staff which can update the latest technical knowledge and skill being used by the industry

Opportunities

- Opportunities for integrated courses due to demand and Locational advantage of the campus
- Ludhiana being the industrial hub for medium and small scale industry, opportunities for starting short term and long term Industry specific courses for industrial personnel
- Opportunities of developing need based appropriate technologies for specific small and medium scale industry of the region
- Opportunities for collaboration with foreign universities for dual degree in upcoming technologies to meet the global challenges
- Opportunities of establishing new centre of excellence with collaboration of established foreign universities and research lab/National Institution & National Research Lab.
- By encouraging in-house research and collaborating with leading national institutes/Research lab it is possible to enhance publication and patent in each department.

Threat

- Escalation of cost of education prohibiting the underprivileged section (rural students) of the society to opt for the technical education
- Merit of incoming students is getting affected due to opening of many new engineering colleges in the region.
- The trend of students towards engineering courses is decreasing.
- Bright students not opting teaching as profession thus making difficult in replacing the retired teacher with an equally intelligent new entrant, thus declining the supply of quality faculty

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8. Plans of institution for next yea:

- To encourage faculty to present papers in National and International Journals/Conferences.
- To encourage faculty to apply for new research projects.
- To encourage students to participate in sports, cultural and co-curricular activities, which is essential for their overall personality.
- Improve transition rate of students.

Name Dr. Harwinder Singh

Hamiles

Name Dr. Manohar Singh Saini

Signature of the Chairperson, IQAC

Dr. Manol.ar Singh Saini

Guru Nanak Dev Engg. College Ludhiana-141006

GNDEC, LUDHIANA

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Annexure I

Abbreviations:

CAS - Career Advanced Scheme

CAT - Common Admission Test

CBCS - Choice Based Credit System

CE - Centre for Excellence

COP - Career Oriented Programme

CPE - College with Potential for Excellence

DPE - Department with Potential for Excellence

GATE - Graduate Aptitude Test

NET - National Eligibility Test

PEI - Physical Education Institution

SAP - Special Assistance Programme

SF - Self Financing

SLET - State Level Eligibility Test

TEI - Teacher Education Institution

UPE - University with Potential Excellence

UPSC - Union Public Service Commission

ANNEXURE-A (ACADEMIC CALENDARS)

SESSION: 2017-2018

Odd Semester					
Sr.	Description	Period			
No.					
1	Session	17 th July, 2017 to 12 th November, 2017			
2	First Mid Semester Examination	04 th September, 2017 to 08 th September, 2017			
3	Second Mid Semester Examination	06 th October, 2017 to 13 th October, 2017			
4	Third Mid Semester Examination	06 th November, 2017 to 08 th November, 2017			
5	End Semester Examination	November, 2017 (15 th)			
6	*End Semester Practical Examination	Dates will be given by Exam. Branch.			
7	Winter Vacations	20 th December, 2017 to 03 rd January, 2018			

Note:

- 1. The dates for the Practical examinations for all the branches will be notified by Examination Branch.
- 2. Number of days falling short of 90 should be compensated by making Saturday/ holidays Working.

<u>Even Semester</u>					
Sr.No.	Description	<u>Period</u>			
1	Session	04 th January, 2018 to 27 th April, 2018			
2	First Mid Semester Examination	19 th February, 2018 to 23 rd February, 2018			
3	Second Mid Semester Examination	19 th March, 2018 to 23 rd March, 2018			
4	Third Mid Semester Examination	23 rd April, 2018 to 26 th April, 2018			
5	Preparatory Holidays	27 th April, 2018 to 01 st May, 2018			
6	End Semester Examination	02 nd May, 2018 to 02 nd June, 2018			
7	*End Semester Practical Examination	Dates will be given by Exam. Branch.			
8	Workshop Training (TR-14301)	21 st May, 2018 to 29 th June, 2018			
9	Summer Vacations	03 rd June, 2018 to 15 th July, 2018			

Note:

- 1. *Practical examinations for all the branches will start immediately after the end of regular examinations.
- 2. Number of days falling short of 90 should be compensated by making Saturday/holidays Working.