



Dr. Jatinder Kapoor (HOD Workshops)

**Professor**

**Dept. of Mechanical Engineering**

**G. N. D. Engg. College, Ludhiana**

**(Autonomous college under UGC Act.)**

**NBA Accredited Tier-I (Washington Accord), NAAC (A Grade)**

**Punjab, India, 141006**

**Resi: 42, staff colony, G.N.D.Engg.College, Gill road, Ludhiana (Punjab), India**

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Mob: +919814857865

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## **SKILL SUMMARY**

24 Years (8 Years *Industrial* and 16 Years *Teaching and Research to under graduate, post graduate, Ph.D. students*) experience in the following Subjects/Fields;

1. Advance Manufacturing Processes
2. Non- traditional Machining
3. Micromachining
4. Mechanical Measurement and Metrology
5. Industrial Automation and Robotics
6. Metal Casting and Metal Forming
7. Welding Technology
8. Research Methodology
9. Industrial Inspections
  - i) Warship equipments inspection (DGQA)

- ii) Cryogenic valves
  - iii) ISI component
  - iv) Engine Block and Pumps
10. Extensive hands-on experience with EDM Machining (Wire and Sinker),Cryogenic processing of materials
  11. FDM
  12. Knowledge of software like Design Expert, Minitab

**Other:** Fluent in English

## **EDUCATION**

### **Ph.D**

**01.04. 2013**

Department of Mechanical Engineering, University College of Engineering, Punjabi University, Patiala, Punjab, India.

**Thesis Topic: “Effect of Cryogenic Treated Brass Wire on the Performance of Wire Electrical Discharge Machining”**

### **M.Tech.**

**27.01.2005**

Mechanical (Production Engineering), G.N.D. Engg. College, Ludhiana, (Punjab Technical University, Kapurthala, Punjab, India)

**Thesis Topic: –Parametric investigations into bore honing process”**

*Percentage marks- 70%*

### **B.E.**

04.08.1990

Amravati University, Amravati.

*Percentage marks- 70%*

### **Pre- Engg**

April 1987

*Percentage marks- 68%*

## **PROFESSIONAL MEMBERSHIP**

### **Membership of Engineering Institutions/Societies**

**The Indian Society for Technical Education, Life Member : LM 41240**

**The Institution of Engineers (I), Fellow Member : F-121809-5**

**The Institution of Engineers (I), Chartered Engineer [India]**

**The Institution of Industrial Engineering ME SMIE 10377 (99)**

**Institute of Research Engineers and Doctors (IRED), USA**

**Senior Member (UAMAE) SNM101000383**

**International Association of Engineers (IAENG) UK**

**Member-101633**

## **EXPERIENCE**

**G.N.D.Engg.College –Ludhiana,Punjab, India,**

*Associate. Prof.*

Research and teaching in the field of

- Non conventional machining
- Jigs and Fixtures
- Welding technology
- Production Planning and Control
- Mechanical Measurement and Metrology
- Diagnostic maintenance and monitoring
- Consultancy for industrial problems (*July 2006-present*)

***Additional Duties;***

1. *Chief Warden*
2. *Departmental NBA coordinator*
3. *Departmental TEQIP coordinator*
4. *Departmental NAAC coordinator*

***B.H.S.B.I.E.T.–Lehragaga, Punjab, India,***

*Asstt. Prof.*

H.O.D, Mechanical Deptt.

Dean Student Welfare

Deputy registrar,

Teaching in the field of manufacturing processes,

Engg. Drawing, Mechanical Measurement and Metrology, IAR

*(September 2005-june 2006)*

***G.N.D.Engg.College –Ludhiana, India, Lecturer W/P.***

Research and Teaching in the field of

- Metal casting

- Production Planning and Control —Metal forming

-Diagnostic maintenance and monitoring (April 1998- September 2005)

**Industrial Experience (Leader Valve Ltd., Jalandhar, Punjab, India)**

**Designation:**

- i) Trainee engineer (1990 to 1991)**
- ii) Engineer (1991 to 1993)**
- iii) Dy. Manager(1993 to 1995)**
- iv) Manager PPC(1995 to 1998)**

Worked for Design and development of Indian Defence items Viz. Mountings of navy warship and vessels and Industrial valves, cryogenic valves etc. Actively involved in inspection quality control of various items supplied to Indian shipyard and process industries. Being in-charge production Planning and control deptt, handled many projects from EIL, L&T, GRSE and MDL Etc. Directly supervised

around 900 workers. Worked in coordination with Design Dept. and successfully developed many products. Assisted in Developing many jigs and fixtures to enhance productivity. Handled many projects independently. Vendor development, Maintenance of mechanical systems (1990- April1998)

***Record of engineering experience in chronological order after passing BE/B.Tech.***

Date	Employer/client	Job Title	Major Job Responsibilities
<b>1990 to 1991</b>       <b>1991 to 1993</b>      <b>1993 to 1995</b>      <b>1995 to 1998</b>	Leader Valves Ltd. Jalandhar, Punjab	<b>Training Engineer (TE)</b>      <b>Engineer</b>   <b>Dy. Manager</b>     <b>Manager PPC</b>	Worked for Design and development of Indian Defence items Viz. Mountings of navy warship and vessels and Industrial valves, cryogenic valves etc. Actively involved in inspection quality control of various items supplied to Indian shipyard and process industries. Being in-charge production Planning and control deptt, handled many projects from EIL, L&T, GRSE and MDL Etc. Directly supervised around 900 workers. Worked in coordination with Design Dept. and successfully developed many products. Assisted in Developing many jigs and fixtures to enhance productivity. Handled many projects independently. Vendor development, Maintenance of mechanical systems
(April 1998-September 2005)	<b>G.N.D.Engg.College</b> – <i>Ludhiana, Punjab, India</i>	<b>Lecturer (W/P)</b>	<b>G.N.D.Engg.College</b> – <i>Ludhiana, India, Lecturer W/P.</i> Research and Teaching in the field of - Manufacturing Processes-I,II - Metal casting - Production Planning and Control -Metal formin - Workshop Training - Warden Hostel
(September 2005-june 2006)	<b>B.H.S.B.I.E.T.–</b> <i>Lehragaga, Punjab, India,</i>	Assistant Professor	H.O.D (Mechanical Deptt.) Dean Student Welfare Deputy registrar, Teaching in the field of manufacturing processes, Engg. Drawing, Mechanical Measurement and Metrology, IAR

July 2006-july 2009	<b>G.N.D.Engg.College</b> – <i>Ludhiana,Punjab, India,</i>	Assistant Professor	Research and teaching in the field of - Non conventional machining - Jigs and Fixtures - Welding technology -Production Planning and Control -Mechanical Measurement and Metrology -Research Methodology -Consultancy for industrial problems
July 2009- 2016	<b>G.N.D.Engg.College</b> – <i>Ludhiana,Punjab, India,</i>	Associate Professor	Research and teaching in the field of - Non conventional machining - Jigs and Fixtures -Mechanical Measurement and Metrology - Research Methodology - Industrial automation and robotics -Consultancy for industrial problems Chief Warden
2016 till date	<b>G.N.D.Engg.College</b> – <i>Ludhiana,Punjab, India,</i>	Professor	Research and teaching in the field of - Non conventional machining - Manufacturing processes - Research Methodology -Consultancy for industrial problems  - Dept. coordinator for NBA -HOD (Workshops)

## List of research Publications

### Publications in Refereed International Journals

1. Singh, K.J., Ahuja, I.P.S. and Kapoor, J. (2017), —Chemical assisted ultrasonic machining of Polycarbonate glass and optimization of process parameters by Taguchi and Grey Relational Analysis, *Advances in Materials and Processing Technologies*, Taylor & Francis. pp. 1-23, 3(4), ISSN: 2374-068X (Print), DOI. dx.doi.org/10.1080/2734068X.2017.1350022.
2. Singh, K.J., Ahuja, I.P.S. and Kapoor, J. (2017), — Optimization of material removal rate in ultrasonic machining of polycarbonate bullet proof glass and Acrylic heat resistant glass by Taguchi method, *Multidiscipline Modeling in Materials and Structure*, Emerald Publishing. (Accepted- 10-07-2017). ISSN: 1573-6105 <https://doi.org/10.1108/MMMS-04-2017-0019>
3. Singh, K.J., Ahuja, I.P.S. and Kapoor, J. (2017), —Grey relational analysis of chemical assisted USM of Polycarbonate bullet proof (UL-752) & Acrylic heat Resistant (BS-476) Glass, *Grey System: Theory and Application*, Emerald Publishing. (Accepted- 07-07-2017). ISSN: 2043-9377
4. Singh, K., Ahuja, I.P.S. and Kapoor. J. (2017), —Optimization of process parameters for surface roughness in ultrasonic machining of polycarbonate bullet proof glass and acrylic heat resistant glass by Taguchi and Grey Relational Analysis Approach, *Advanced Engineering Forum-Scientific. Net Trans Tech Publication, Switzerland*, Vol. 23, pp 21-44, ISSN: 2234-991X doi:10.4028/www.scientific.net/AEF.23.21.
5. Singh, K., Ahuja, I.P.S. and Kapoor. J. (2017) –Mathematical modeling for material removal and optimization of ultrasonic drilling of polycarbonate and acrylic glass for surface roughness

- through grey relational approach, *International Journal of Mechanical engineering And Applications-Science Publication Group-USA*, 5(3): 136-154. doi: 10.11648/j.ijmea.20170503.12.
6. Singh, K., Ahuja, I.P.S. and Kapoor. J. (2017) —Multi-response analysis of chemical assisted ultrasonic machining of UL-752 and BS-476 Glass by GRA approach, *International journal of Materials Engineering- Scientific & Academic Publication-USA*, 7(2): 33-43. DOI:10.5923/j.ijme.20170702.03.
  7. Singh, K.S., Ahuja, I.P.S., Kapoor, J. and kapoor, D. (2017) —A Study on the Tool Geometry and Stresses Induced in Tool in Ultrasonic Machining Process Applied for the Tough and Brittle Materials| *International Journal of Engineering and Advanced Technology (IJEAT)*, Volume-6, Issue-NASET17, 143-147.ISSN- 2249 – 8958
  8. Singh, K.S., Ahuja, I.P.S. and Kapoor, J. (2017) —Study the effect of abrasive ( $A_{1203}$  & SiC) in ultrasonic machining of plain glass| *International journal of manufacturing science and engineering (IJMSE)*, 8(1) :7-11, ISSN- 0976-6812
  9. Kapoor, J. and Singh, T. (2017) –To Study the Effect of Silica Based Yttrium Cerium Hybrid Sol-gel Coating on Hot Corrosion of Boiler Steel (MS 210)| *International Journal of Engineering and Advanced Technology (IJEAT)*, Volume-6, Issue-NASET17, 140-142. ISSN-2249 – 8958.
  10. Kapoor, D., Saini, R. and kapoor, J. (2017) –Study the Machining Performance of En 36 steel Under Different Cutting Conditions| *International journal of manufacturing science and engineering (IJMSE)*, 8(1): 113-117. ISSN-0976-6812.
  11. Singh, K., Ahuja, I.P.S. and Kapoor. J. (2017), —Ultrasonic machining of polycarbonate bullet proof & acrylic heat resistant glass and optimization by grey relational analysis|, *International Journal of Lean Thinking*. Vol. 8, Issue 1, pp 1-15. (Accepted June-2017) ISSN : 2146-0337
  - 12. Kapoor, J (2015) –Parametric Investigations into Bore Honing Through Response Surface Methodology| *Material Science Form*, 808: 11-18. DOI:10.4028 (SCI index)**
  13. Kapoor, J. Salaria, S. (2015) —Study the internal surface and geometrical characteristics of cylindrical work piece in ECH| *International Journal of Advancements in Mechanical and Aeronautical Engineering- IJAMAE*, 2(1) : 196-199. ISSN: 2372-4153.
  14. Kapoor, J., Singh, S.P (2014) –The effect of deep and shallow cryogenic treated wire electrodes on the performance characteristics of WEDM, *International Journal of Fluid Mechanics and Machinery (IJFMM)*, 1(2), : 6-10.ISSN : 2374-1481
  15. Kapoor, J., Bhogal, R (2014) –Tribological properties in electro deposition on Ni-TiO<sub>2</sub> composite coating on tungsten carbide cutting tool| *International Journal of Engineering and technology in India*, 5(1&2): 38-43.**DOI. 10.15740/HAS/ETI/5.1and 2/38-43**, ISSN; 2230-9284
  - 16. Kapoor, J., Khamba, J.S. and Singh, S.P. (2013) –Effect of different wire electrodes on the performance of WEDM|, *Material Science Form*, 751: 27-34. DOI:10.4028 (SCI)**
  17. Kapoor, J., Singh, S.P. and Khamba, J.S. (2012) —Effect of cryogenic treated brass wire electrode on material removal rate in wire electrical discharge machining|, *Journal of Mechanical Engineering Science*, 226 (11): 2750 – 2758 (ISSN 0954-4062)**DOI. 10.1177/0954406212438804.(SCI)**
  - 18. Kapoor, J., Khamba, J.S. and Singh, S.P. (2012) —An investigation on wear of shallow cryogenic treated wire in WEDM|, *Materials Science Form*, 701: 31-42. DOI:10.4028 (SCI)**
  - 19. Kapoor, J., Khamba, J.S. and Singh, S.P. (2012) –The effect of machining parameters on surface roughness and material removal rate with cryogenic treated wire in WEDM|, *Int. J. Machining and Machinability of Material*, 12(1/2) : 126-141.ISSN print: 1748-5711**DOI: 10.1504/IJMMM.2012.048562 (SCI)****

20. Kapoor, J., Singh, S.P. and Khamba, J.S. (2012) —Effect of shallow cryogenic treated brass wire electrode on workpiece surface roughness in wire-EDM, *Int. J. Material's Engineering Innovation*, 3(3/4):190-203 ISSN print: 1757-2754. DOI: **10.1504/IJMATEL.2012.049262 (SCI)**
21. Kapoor, J., Singh, S.P. and Khamba, J.S. (2012) —High performance wire electrodes for wire electrical discharge machining – a review, *Journal of Engineering Manufacture*, 226(11): 1757-1773. ISSN 0954-4054. DOI. **10.1177/0954405412460354 (SCI)**.
22. Kapoor, J., Singh, S.P. and Khamba, J.S. (2011) —Current research trends on wire electrodes for wire electrical discharge machining, *Int. Journal of Engg. Sciences*, 1 (1):167-174. ISSN 2229-6913.
23. Kapoor, J., Khamba, J.S. and Singh, S.P. (2011) —Effects of cryogenic treated wire electrode on the surface of an EN-31 steel machined by WEDM, *International Journal of Surface Engineering and Material Technology*, 1(1): 43-47. ISSN: 2249-7250 . DOI. **10.1177/0954406212438804**.

### ***Patent –***

- Patent title “Cryogenic treatment of brass wire for improved machining characteristics” has been published (U/S 11A) by controller general of patent design and trade mark India on 29.04.11. (Inventors; Kapoor, J, Khamba, J.S., Singh, S.P., Sangha, B.S.)
- Two patents by students under process

### **Publications in Refereed International Conferences**

1. Kapoor, J. and Singh, T. (2017) — To Study the Effect of Silica Based Yttrium Cerium Hybrid Sol-gel Coating on Hot Corrosion of Boiler Steel (MS 210) In the Proc. Of International conference on Novel approaches in science engineering and Technology (NASET 2017), Madhav University Pindwara, Sirohi Rajasthan, 24-25<sup>th</sup> Feb 2017.
2. Kapoor, J. (2014)—Study the internal surface and geometrical characteristics of cylindrical work piece in ECH In the Proc. Of the Intl. Conf. on Advances in Mechanical and Robotics Engineering—AMRE 2014, Switzerland, pp . (ISBN: 978-1-63248-031-6) doi:**10.3850**.
3. Kapoor, J. (2013) -The Effect of Cryogenically Treated Brass Wire Electrode on the Performance Characteristics of WEDM In the Proceedings of International Conference on Sustainable Manufacturing and Operations Management ISOM-2013, Mauritius, pp 31-36. ISBN : **9788192578125**
4. Kapoor, J (2013) -Multi response optimization of WEDM using utility based Taguchi approach In Proc. of international conference on research and innovations in mechanical engineering (ICRIME-2013) held at GNE, Ludhiana, 24<sup>th</sup> -26<sup>th</sup> Oct. PP 233-242 (**Lecture Notes in Mechanical Engineering, DOI: 10.1007/978-81-322-1859-3\_21 Springer India 2014**)
5. Kapoor, J. and Singh S.P. (2013)-The Effect of Deep and Shallow Cryogenic Treated Wire Electrodes on the Performance Characteristics of WEDM In the Proc. Of the Intl. Conf. on Advances in Mechanical and Robotics Engineering—AMRE 2013, Switzerland, pp 66-70. (ISBN: 978-981-07-7965-8)doi:**10.3850**.
6. Kapoor, J (2013) -Effect of cryogenic treatment on wire electrodes for WEDM In: the proceedings of 3<sup>rd</sup> International Conference on Production, Jalandhar, India, 29-31,



March 2013. Production and Industrial Engineering (CPIE 2013), National Institute of Technology, Jalandhar, India.

7. Kapoor, J., Singh, J., Singh, P. (2012) –Technology assessment and improvement in forging process|| In: International conference on advancement in engineering and technology, Oct. 12-13, BGIET, Gangrur, Punjab. **ISBN-978-93-82062-66-0**
8. Kapoor, J., Singh. S. P., and Khamba, J.S. (2010) –Recent developments in wire electrodes for high performance WEDM||, In: Proceedings of the world congress on engineering (WCE2010), June 30-July 2, London, UK: 1065-1068. (**ISSN 2078-0958**).
9. Kapoor, J., Khamba, J.S. and Singh, S. P. (2010) –The effect of machining parameters on surface roughness and material removal rate with cryogenic treated wire in WEDM|| In: the proceedings of 2<sup>nd</sup> International Conference on Production, Jalandhar, India, 3–5 December 2010. Production and Industrial Engineering (CPIE 2010), National Institute of Technology, Jalandhar, India. (**ISBN978-81-920453-0-6**)
10. Singh, S. P., Kapoor J., Singh. K (2009) –Parametric studies for drilling of glass fibre reinforce composites||, In: Proceedings of third international conference, AES-TEMA, July 06-10, Montreal, Canada: 119-124. ( **ISBN 09780479**)

#### **Publications in Refereed national Conferences**

1. Singh, K.S., Ahuja, I.P.S. and Kapoor, J. (2016) –Study the effect of abrasive ( $Al_2O_3$  & SiC) in ultrasonic machining of plain glass|| In Proceedings of national conference on production engineering, 7-8<sup>TH</sup> Oct 2016. GNDEC, Ludhiana
2. Singh, K.S., Ahuja, I.P.S. and Kapoor, J. (2015) —Ultrasonic Machinng of Glass brittle material- A review || In Proceedings of national conference on Latest developments in materials , manufacturing and quality control, 19-2<sup>0TH</sup> Feb 2015. Giani Zail Singh Punjab Technical University Campus, Bathinda
3. Singh, K.S., Ahuja, I.P.S. and Kapoor, J. (2015) –Study the effect of abrasive and hydrofluoric acid in ultrasonic machining of plain glass materials|| In Proceedings of national conference on Latest developments in materials , manufacturing and quality control, 19-20<sup>TH</sup> Feb 2015. Giani Zail Singh Punjab Technical University Campus, Bathinda
4. Singh, S.P, Kapoor, J., Khamba, J.S. (2011) –Experimental investigation of machining parameters on wire electrode crater volume in wire electrical discharge machining on EN 31 steel|| In Proceedings of national conference on advances in mechanical engineering, 20-21 May 2011. UIET, Punjab University Chandigarh, pp 168-172. **EAN-8903072071843**
5. Kumar, J. and kapoor, J. (2011) –Productivity improvement through work sampling techniques a case study||, In Proceedings of national conference on advances in mechanical engineering, 20-21 May 2011. UIET , Punjab University Chandigarh, pp 212-215. **EAN- 8903072071843**.
6. Singh, U. and Kapoor, J (2011) Effect of deep –cryogenic treatment on the electrode life of resistance spot welding –Proc of the 4<sup>th</sup> National Conference on Emerging Trends in Mechanical Engineering, Marc 18 -19 , V.VNagar- 388120, Gujarat, India **ISBN: 978-81-909376-3-4**.

7. Singh, J. and Kapoor, J. (2010) –Technology awareness and cost reduction in forging industry at Ludhiana, In proceedings of national conference on Futuristic trends in mechanical engineering, 29-30 Oct. 2010, Ludhiana, pp 201-207. (ISBN 978-93-80697-24-6).
8. Kapoor, J. (2005) –Abrasive flow machining, Proc of the national conference on emerging trends in manufacturing systems, EMST 2005, March 15-16.
9. Kapoor, J. (2005) –Electron beam processing for automotive composite applications, Proc of the national conference on emerging trends in manufacturing systems, EMST 2005, March 15-16.
10. Kapoor, J. (2005) –A review of electrochemical bore finishing and hole drilling process, Proc of the national conference on emerging trends in manufacturing systems, EMST 2005, March 15-16.
11. Kapoor, J. and Singh, S. (2004) —*Parametric investigations into Bore Honing through Response Surface Methodology*, Proc. National Conference on Emerging Trends in Mechanical Engineering, Padre Conceicao College of Engineering Verna, Goa on Sept-10-12 2004.
12. Kapoor, J. (2002) –Recent development in automated deburring processes, Proc of national seminar on recent advances in science and engineering, 29<sup>th</sup> January..

**M.Tech. Thesis Guided: 26 (pursuing: 04)**

S.No.	Year	Topic of M.Tech Thesis	Name of the Candidate	Name of Supervisor/Co-Supervisor
1	2008	Parametric studies for drilling of glass fibre reinforce composites	Kuldeep Singh	Dr. Jatinder Kapoor Dr. Sehijpal Singh
2	2009	Effect of rolling directions on normal anisotropy and springback for cold rolled steel sheet	Anil Kumar	Dr. Jatinder Kapoor
3	2010	Technology awareness and cost reduction in forging industry at Ludhiana	Jagdeep Singh	Dr. Jatinder Kapoor
4	2010	Investigations of wire wear and wire breakage in wire electrical discharge machining	Harsh Kumar	Dr. Jatinder Kapoor
5	2011	Study of factors that hinders growth of small scale industries in	Suhail Balhotra	Dr. Jatinder Kapoor

		Ludhiana		
6	2011	Effect of different wire electrode materials on the performance of WEDM	Rajiv kumar	Dr. Jatinder Kapoor
7	2011	Effect of deep cryogenic treatment on the electrode life of resistance spot welding	Upkar singh sidhu	Dr. Jatinder Kapoor
8	2011	Implementation of work sampling technique to increase productivity	Jenender kumar	Dr. Jatinder Kapoor
9	2012	Effect of surface imperfection on axial load capacity of a thin cylinder	Maninderpal Singh	Dr. jatinder kapoor , Dr. G.S.Brar
10	2013	Parametric investigation into electrochemical honing	Baldeep Singh	Dr. Jatinder Kapoor
11	2014	Study the internal surface and geometric characteristics of cylindrical work piece	Sandeep Salaria	Dr. Jatinder Kapoor
12	2014	Effect of uncoated and multilayer coated ceramic inserts in hard turning of EN-31 steel – A comparative study	Vijay kumar	Dr. Jatinder Kapoor
13	2014	Experimental investigations into the effect of diffusion annealed wire (D-Type) on WEDM	Gurjant singh	Dr. Jatinder Kapoor
14	2014	Performance evaluation of uncoated and Ni-Tio nano composite coated tool	Rajinder Singh	Dr. Jatinder Kapoor
15	2015	Effect of Process parameters on the performance of horizontal centrifugal casting	Harpreet singh Jandu	Dr. jatinder kapoor
16	2015	Study the effect of abrasive and hydrofluoric acid in ultrasonic machining of plan glass material	Pardeep Kumar	Dr. jatinder kapoor
17	2015	Effect of welding parameters on flux consumption and metal	Karanjeet singh	Dr. jatinder kapoor

		deposition rate in submerged arc welding		
18	2015	Experimental Investigations For The Effect Of Dry, Wet And Cryogenic Conditions In Turning Of En8 Steel	Harjinder Singh	Dr. jatinder kapoor
19	2015	Experimental Investigation on Ultrasonic machining of Bullet resistant glass Type b35 using mixed Abrasive slurry	Loveneesh Kumar Dadwal	Dr. jatinder kapoor
20	2016	Development of radial swaging tool for cold working of inner surface of cylinder	Gulvir singh	Dr. Jatinder Kapoor Dr. Sehijpal Singh
21	2016	TO study the high temperature corrosion resistance of cerium substituted silicate zirconium sol-gel protective coating on ss-304 boiler steel	Amrinder Singh	Dr. Jatinder Kapoor
22	2106	TO study the effect of silica based yttrium cerium hybrid sol-gel coating on hot corrosion of boiler steel (MS-210)	Tajinder Singh	Dr. Jatinder Kapoor
23	2016	Effect of different cutting conditions on the performance of turning of EN36 steel	Rajinder Saini	Dr. Jatinder Kapoor
24	2016	To study the mechanical properties of aluminum matrix in composite reinforced with rice husk ash using stir casting process	Amar Singh	Dr. Jatinder Kapoor
25	2016	Study the effect of flex tool on performance of honing	V.K.Chadha	Dr. Jatinder Kapoor
26	2016	Effect of process parameters on the performance measures in	Ravinder Singh	Dr. Jatinder Kapoor

		wire-cut EDM of Nimonic-90 using two different wires		
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### **PhD guided**

#### **Four candidates pursuing PhD**

#### **Research Grants received:**

1. Received research grant Rs. 8 Lac from AICTE for the project titled — Magnetic abrasive assisted machining
2. Received research grant of Rs 0.50Lakh form IEI for the project titled — development of plateau honing tool

#### **Books Published -2**

### **ACTIVITIES**

#### **Short-Term Courses /Training program attended/organized:**

1. Attended a training programme on Integrated CAD-CAM/PRO-ENGINEERING course of 120Hrs duration.
2. Attended two weeks short term course entitled —Recent Trends in Product Design and Development at BSBEC, Fatehgarh Sahib, July 15-26, 2002
3. Attended one week short term training programme on —Academic planning and Management for Faculty of Engineering Colleges (23.06.2003 to 27.06.2003) at TTTI Chandigarh.
4. Attended one week short term training programme on CAD/CAM (31.05.2004 to 04.06.2004) at TTTI Chandigarh.
5. Attended one week MHRD/AICTE sponsored winter school on —Education Auditing and Feedback System for Excellence in Technical Institutions at NITTTR, Chandigarh (12.01.2009 to 16.01.2009).
6. Attended two weeks QIP course on —Research Methodology at IIT Roorkee (09.06.2008 to 20.06.2008)
7. Attended one week TEQIP sponsored short term course on —Low Cost Hi –Tech Automation at NIT , Jalandhar from 05.06.2006 to 09.06.2006.
8. Attended two days workshop on —Learning Content Management at GNE, Ludhiana from 22.05.2012 to 23.05.2012.
9. Attended two weeks FDP on —Recent Advancements in Manufacturing Technology at GNDEC, Ludhiana from June 10-21, 2013.

10. Attended two weeks FDP on —Finite Elements Methods and Application|| at GNDEC, Ludhiana from 31.10.2013 to 13.11.2013.

11. Organizing secretary for on International conference, two national conferences and one national workshop for the department.

12 Attended one week course on Management Capacity Enhancement Programme in IIM Indore form June 08-14, 2015.

### **EXPERT LECTURE:**

1. Delivered two expert lectures at RIET, Phagwara.
2. Delivered expert lecture on 20<sup>th</sup> June 2014 during two day workshop on Role of Optimization techniques for research applications from 19<sup>th</sup> -20<sup>th</sup> June, 2014 at GNDEC, Ludhiana.
3. Delivered expert talk on 25<sup>th</sup> June 2014 during one week short term course on advances in mechanical Engineering held under TEQIP-II from 23<sup>rd</sup> – 27<sup>th</sup> June, 2014 at BCEIT Gurdaspur.
4. Delivered expert talk at FDP in GNDEC.
5. Delivered expert talk on Innovative Tool Materials for WEDM in Two days national Conference on Innovation in Futuristic materials and manufacturing Techniques on Dec 26-27 , 2014 at Manipal University, Jaipur
6. Delivered expert talk on advanced computational techniques on 20<sup>th</sup> Oct in Short Term Training Programme on —Recent Advances in Computational Techniques in Engineering|| (STTP-RACTE-16) from 17<sup>th</sup> to 21<sup>st</sup> October, 2016.

### **CONSULTANCY**

Independently handled many Consultancy projects for industrial problems

### **REFERENCES**

- i) Dr. I.P.S. Ahuja, Professor  
Department of mechanical Engineering,

Punjabi University

Patiala, Punjab

Email Id : [ahujaiips@yahoo.co.in](mailto:ahujaiips@yahoo.co.in), [ahujaiips@gmail.com](mailto:ahujaiips@gmail.com)

- ii) Dr. Lakhvir Singh, Professor,

Department of Mechanical Engineering

BBSBIET, Fathegarh Sahib

Punjab, India

Email ID : [lakhvir.singh@bbsbec.ac.in](mailto:lakhvir.singh@bbsbec.ac.in)

iii) Dr.Shankar Singh

Professor,

Department of Mechanical Engineering ,

SLIET, Longowal,

Punjab, India

Email ID: [singh.shankar@gmail.com](mailto:singh.shankar@gmail.com)

iv) Dr Harmesh Kansal

Professor, Dept of Mechanical Engineering

University Institute of engineering and technology

Punjab University

Chandigarh, Punjab India

Email ID [harmesh@pu.ac.in](mailto:harmesh@pu.ac.in)

**Interests** - Literature

**Citizenship** – India.



Name : Ranjit Singh

Date of Birth : 10-6-1971

Designation : Asstt. Prof. (Workshops)

Experience : Teaching: 24years  
Industry : 7 years

Other : . Nodal Officer; Procurement, O.I/C Fire Fighting, SPO,  
Supervisor Gensets, MemberElect. Maintenance  
Committee.

Qualifications : M.Tech. (Electrical Engineering)





Name : Jasbir Singh

Date of Birth : 01-06-1966

Designation : Sr. Instructor

Experience : 1. Instructor (18.10.1992 to till date)  
2. Supdervisor at Indian Decorator 366, Janta Nagar (1986-1992)

Qualifications : 1. Diploma (1985)  
2. Matriculation (1982)



Name : Hakam Singh

Date of Birth : 18-02-1966

Designation : Sr.Instructor

Experience : 1.Instructor (G.N.D.E.C.) (April 1994 to  
Till date)  
2. CDRTG. N. D. Poly. Ldh. (1990-1994)

Other :Officer Incharge Gen Sets.

Qualifications : 1.Post Diploma in Automobile & Tractor  
Engg. (1991)  
2. Diploma (1990)  
3. Matriculation (1984)



Name : Rampartap Singh

Date of Birth : 26-02-1966

Designation : Sr. Instructor

Experience : 1. Instructor (G.N.D.E.C.) (01.10.1992 to 31.12.1992 & 23.4.1993 to till date)  
2. Industrial Experience (1986-1992)

Other : Maintain work shop sessional register and attdc.record.  
Incharge of Time Table (Workshops)

Qualifications : 1. I.T.I. Moulder (1986)  
2. Matriculation (1982)



Name : Jasgur Singh

Date of Birth : 01-06-1969

Designation : Sr. Instructor

Experience : 1. Instructor (1994 to till date)

Qualifications : 1. C.T.I. (Fitter) (1991)  
2. I.T.I. (Fitter) (1987)  
3. Matriculation (1985)



Name : Gurmeet Singh

Date of Birth : 01-04-1966

Designation : Instructor

Experience : 1. About 12 years in Auto Lab.  
2. Instructor (G.N.D.E.C.) (1994 to till date)

Qualifications : 1. Diploma in Mech. (1993)  
2. Matriculation (1982)



Name : Charanjt Singh

Date of Birth : 20-11-1963

Designation : Instructor

Experience : 1. Instructor (G.N.D.E.C.) (1994 to till date)

Qualifications : 1. Diploma (1990)  
2 .I.T.I. Electrician (1982)  
3. Matriculation (1980)



Name : Sukhpal Singh

Date of Birth : 07-09-1972

Designation : Instructor

Experience : 1.Instructor (G.N.D.E.C) (2002 to till date)

Qualifications : 1. Diploma (1992)  
2. Matriculation (1988)



Name : Amritpal Singh

Date of Birth : 20-07-1975

Designation : Instructor

Experience : 1. Instructor ( G.N.D.E.C.) (20.12.2002 to till date)  
2. Instructor (G.N.D.E.C.) (2001-2002)  
3. Industrial Exp. (1997-2001)

Qualifications : 1. One year diploma in Comp. Aided & Tool Design (2001)  
2. Post diploma in Automobile & Tractor Engg. (1997)  
3. Diploma (1996)  
4. Matriculation (1991)





Name : Balwant Raj

Date of Birth : 30-03-1969

Designation : Instructor

Experience : 1. Instructor (G.N.D.EC.) (2003 to till date)  
2. Industrial experience (1988-2003)  
In G.N.A. Udyog Ltd. Jalandhar  
3. Auto CAD-2D and 3D

Qualifications : 1. Diploma (1988) (3 yr. diploma Mech. Engg.)  
2. Matriculation (1985)



Name : Jatinder Singh

Date of Birth : 21-03-1963

Designation : Instructor

Experience : 1. M/s Dhillon Enterprises (1986-1990)

2. M/s Sakshi International

3. Generator Operator-cum-Mechanic  
(26-11-2009 to 31-07-12)

4. Instr.01-08-12 till date GNDEC,Ldh.

Qualifications : 1.Diploma in Mech.Engg.(1990)

2. Short term Diploma-Heat Treatment

3. Short term Diploma Matrology & Inspection

4. Matriculation (1986)



Name : Inderjit Singh

Date of Birth : 03.02.1990

Designation : Instructor

Experience : 1. Two years in Endico Power Tools  
Ludhiana as Quality Engineer.

2. One year 8 months in Govt.ITI Ludhiana  
as Instructor.

3. Instructor workshops in GNDEC,  
Ludhiana since 14.10.2015 till date

Qualifications :1. Diploma in Mechanical Engg .(2011)

2. 10 + 2 (2008)

3. Matriculation (2006)



Name : Gurpreet Singh

Date of Birth : 19.12.1988

Designation : Instructor

Experience :1. Two years as Quality Inspector  
2. One year as a Mechanic in GNDEC, Ludhiana  
3. Instructor Workshops in GNDEC Ludhiana since 16.10.2015 till date.

Qualifications : 1. B.Tech. (ME) (2013)  
2.10+2 (2008)  
4. Matriculation (2006)



Name : Deshinder Singh

Date of Birth : 08.02.1992

Designation : Instructor

Experience : 1. Instructor workshops in GNDEC,  
Ludhiana since 20.03.2017 till date

Qualifications :1. Diploma in Electrical Engg. (2012)  
2. One year Diploma in Electrical and motor Winding (2014)  
3. 10 + 2 (2009)  
4. Matriculation (2007)



Name : Manjit Singh

Date of Birth : 27.09.1976

Designation : Instructor

Experience : 1. Electrical and AC Mechanic (1992-1995)  
In Shashi Elect. Works Ludhiana.  
2. AC Mechanic (1996-1997) in Shri Bala ji  
Air Cond. Ludhiana.  
3. Senior AC Mechanic(1997-2000) in Ludhiana  
Refrigeration and Air Conditioning House,  
Ludhiana  
4. Instructor in Guru Nanak Dev Polytechnic College  
Ludhiana (2000-2015)  
  
5. Lab Technician Workshops in GNDEC  
Ludhiana since 18.02.2015 till date.  
6. Instructor Workshops in GNDEC  
Ludhiana since 03.12.2020 till date

Qualifications : 1. Diploma in Mechanical Engg.(2013)  
2. I.T.I in  
Refrigeration  
and Air  
Conditioning  
(2007)  
3. Short term  
course in  
RAC (2000)  
4. 10+2  
(1996)  
3. Matriculation (1992)



Name : Puran Singh  
DOB : 15/04/1974  
Designation : Instructor  
Experience :  
1. Instructor in GNDCP, Ludhiana. (1999-2004)  
2. Instructor in Mech. Engg. Dept. Of IET Bhattal. (2004-2005)  
3. Lab Technician in Mech & Prod. Engg. Dept. of GNDEC, Ludhiana.  
Since 2005 to till date.  
4. Instructor Workshop in GNDEC Ludhiana since 08.02.2021.  
Qualifications :  
1. Diploma in Mechanical Engg. ( 2016)  
2. ITI (1993)  
3. 10+2 (1994)  
4. 10<sup>th</sup> (1991)  
Certificate Courses :  
1. Skill Development Training , TTTI Chd. (14/05/2001 To 18/05/2001)  
2. Auto Cad Training ATI Ludhiana. ( 25/05/2012 To 22/07/2012)  
3. Workshop on Utilization Engg. Standards, GNDEC, Ludhiana.(  
14/02/2013)  
4. Integrated CAD/CAM-NX/ Unigraphics Training (24/06/2013 To  
12/07/2013)  
5. Open Source Technology , CSE Dept. GNDEC, Ludhiana.  
6. Field Application of DSC, Prod. Engg. Dept. GNDEC, Ludhiana





