

# **PUNJAB INSTITUTE OF TECHNOLOGY, GTB Garh (Moga)**

## **1) About the Institute:**

Punjab Institute of Technology, GTB Garh (Moga) is a Constituent College of Maharaja Ranjit Singh Punjab Technical University, Bathinda and is the only Government Technical Institution in the District Moga. PIT, GTB Garh is well established Institute of the Malwa Region of Punjab and offers M. Tech, B. Tech, BBA, BCA, B.com. (Hons.) & Skill Certificate courses. The sprawling campus of institute with its lawns and extensive play grounds provides a healthy environment for all round development of the next generation. The campus is dotted with well-equipped laboratories, library, lecture halls and tutorial rooms, common rooms for students, faculty/Staff Cabins spread in 20 acres land. Institute regularly organizes seminars, expert lectures, workshops, extracurricular under N.S.S. unit, sports events and other co-curricular activities for overall development of students. Number of scholarships and financial aids are being provided to meritorious and economically weaker students. Well Qualified and dedicated faculty are the pillars of the institute who are committed for quality education to aspiring students.

## **2) Academic Programmes /Courses offered:**

- i) B. Tech - Computer Science & Engineering (Intake 60)
- ii) B. Tech- Mechanical Engineering (Intake 60)
- iii) B. Tech - Electrical Engineering (Intake 60)
- iv) B. Tech - Civil Engineering (Intake 60)
- v) Skill Course- Computer Maintenance and Programming Assistant (Intake 60)
- vi) Skill Course- Electrician (Intake 30)
- vii) Bachelor of Business Administration (Intake 60)
- viii) Bachelor of Computer Applications (Intake 60)
- ix) Bachelor of Commerce (Hons.) (Intake 60)

## **3) Core Research Areas:**

- i) Electrical Measurements,
- ii) Biomedical Instrumentation,

- iii) Control Systems
- iv) Power Transformer Diagnostic
- v) Transformer Insulation
- vi) Free Space optics
- vii) Wireless Sensor Networks
- viii) Data Mining
- ix) Expert System
- x) Surface Engineering
- xi) Bio-Medical Implant
- xii) Manufacturing System of Engineering
- xiii) Structure Engineering
- xiv) Transportation and Highway

#### 4) Faculty / Staff

Name	Designation	Area of Specialization	Contact No. & Email.id
Dr. Amit Kumar Manocha (Director)	Associate Professor	Electrical Measurements, Biomedical Instrumentation, Control Systems	99968-00758 akmanochagzscet@gmail.com
Er. Satvir Singh (Dept. Inch. EE)	Assistant Professor	Power Transformer Diagnostic	9803749034 satvir.ssg@gmail.com
Er. Mini Lumba	Assistant Professor	Free Space optics	8054028001 er.mini19@gmail.com
Er. Kulbeer Singh	Assistant Professor	Transformer Insulation	8591133337 Kulbeerbhullar3@gmail.com
Er. Gurcharan Singh	Assistant Professor	Power System	9467201023
Er. Neeraj Gupta	Technical Assistant	-----	9876174362 neerajguptatapitgtbgarhmoga@gmail.com
Er. Gurbhej Singh (Dept. Inch. CSE)	Assistant Professor	Wireless Sensor Networks	7400440003 brar1895@gmail.com
Er. Charanjeet Singh	Assistant Professor	Data Mining	9592400430 charansheenh77@gmail.com
Er. Achharpreet Bhalla	Assistant Professor	Digital Image Processing	8728806607 achharpreetbhalla@gmail.com
Er. Gurvir Singh	Assistant Professor	Fuzzy Logic	9851800013 gsrakhra1313@gmail.com

Er. Rimpay Mittal	Assistant Professor	Expert System	7888906845 rimpy.garg@yahoo.com
Er. Gagandeep Bhalla	Technical Assistant	hardware and software	9872426030 gagandeepbhalla@gmail.com
Er. Gurbinder Singh (Dept. Inch. ME)	Assistant Professor	Manufacturing System of Engineering	887338004 brar.gurbinder88@gmail.com
Er. Bhupinder Pal Singh	Assistant Professor	Bio-Medical Implants	7986791346 bhindarandhawal@gmail.com
Er. Jarnail Singh	Assistant Professor	Surface Engineering	8427205522 jarnailsolanki@gmail.com
Er. Prabhsimran Singh	Technical Assistant	CAD-CAM	9872511744 waraich0387@gmail.com
Er. Manisha Bansal (Dept. Inch. CE)	Assistant Professor	Concrete Technology	8699256209 manishabansal66@yahoo.com
Er. Preetpal Singh	Assistant Professor	Use of Coconut Shell as Coarse Aggregates in Concrete	8727032227 preetpallau@gmail.com
Er. Surinder Singh	Assistant Professor	Structural Engineering	8872149132 ssbrar1992@gmail.com
Mr. Sanjay Kumar	Technical Assistant	-----	8847382589 amritsarsanjay@gmail.com
Ms. Harpreet Kaur (Dept. Inch. Applied Sci.)	Lecturer	Fluid Dynamics, Numerical Analysis	9417728591 harpreet2610@yahoo.com
Ms. Mandeep Kaur	Lecturer	Literature	9464438492 gauravsangha08@gmail.com
Mr. Arvinder Singh	Lecturer	Algebra	9988262633
Mr. Harvinder Singh	Lecturer	Inorganic chemistry	9888979308 harvinderbrar793@gmail.com
Ms. Shilpa (Dept. Inch. Management)	Assistant Professor	Finance	9464680758 shilpamanocha15@gmail.com
Ms. Karamjeet Kaur	Assistant Professor	Finance	9872398362 karmjeetkaurbrar2016@gmail.com
Ms. Karamjit Kaur	Assistant Professor	Human Resource Management	9815842753 pattokamal@gmail.com

#### 5) Specialized Facilities:

- i) The Computer Science and Engineering Department is providing 24-hour internet facility through Wi-Fi and LAN (16 Mbps 1:1).

- ii) C/C++/Java Language Lab
- iii) Android Lab
- iv) IT Workshop (Science Lab)
- v) Hardware Lab
- vi) Design & Analysis of Algorithms
- vii) Refrigeration and Air Conditioning Lab
- viii) Project Lab in each Department
- ix) Theory of Machine Lab
- x) Fluid Machinery Lab
- xi) Strength of Material Lab
- xii) Strength of Material Lab
- xiii) Fluid Mechanics Lab
- xiv) Concrete Technology Lab
- xv) Transportation Lab
- xvi) Geotechnical Lab
- xvii) Structure Analysis Lab
- xviii) Power Electronics Lab
- xix) Software lab/Mat Lab
- xx) Analog circuits Lab
- xxi) Electrical Machine-I Lab
- xxii) Electrical machine-II Lab
- xxiii) Digital Electronics Lab
- xxiv) Power Electronics Lab

**6) Achievements (2018-2019): Fellowships/ Honors / Awards (Technical)**

**a. By Students**

**NIL**

**b. By Faculty**

- i) The Department of Science and Technology (DST) has sanctioned a research project to Dr. Amit Kumar Manocha (Director) of amount 36,23,832/-
- ii) Er. Bhupinder Pal Singh and Er. Jarnail Singh of Mechanical Department has published two SCI Journals Publications.

**7) Research Outcomes (2018-2019):**

**i) Technology Transfer**

NIL

**ii) Technology Available**

NIL

**iii) Patents**

NIL

**a. Granted**

NIL

**b. Filed**

NIL

**8) Funded Projects (2018-19):**

**a. Completed:**

NIL

**b. Ongoing:**

NIL

**c. Awarded/ Allocated**

NIL

**9) Publications (2018-19):**

- i) Manocha Amit Kumar, Jain Deepak, Arora Ved Prakash, "Transformer Health Monitoring using Cloud Computing", *International Journal of Management, Technology and Engineering*, Volume 8, Issue IX, SEPTEMBER/2018, 918-940.
- ii) Singh Bhupinder Pal, Singh Ramandeep, Mehta J.S., Gupta Anjali, Singh Manjeet, Singh Sunpreet, Prakash Chander," Nano-Mechanical Characterization of Mg-Zn-Mn-Si Alloy Fabricated by Spark Plasma Sintering for Biomedical Applications", *Materials Today: Proceedings* 5 (2018) 27742-27748.
- iii) Singh Jarnail, Chatha Sukhpal Singh, Singh Hazoor," Characterization and corrosion behavior of functional Gradient Hydroxyapatite Coating", *JTST*, 27-8 (2018) 1371-1380.

- iv) Singh Gurcharan, Manocha Amit Kumar, Jindal Vishavdeep,” Total Harmonic Distortion Analysis of Multi Level Inverter using various Pulse Width Modulation Techniques”, *International Journal of Scientific Research and Review*, Volume 07, Issue 03, March 2019,2820-2827.

**10) Books Published by Faculty (2018-19):**

**a. By International Publisher**

NIL

**b. By National Publisher**

NIL

**11) Papers Published in Conferences Proceeding (2018-19):**

**a. International**

- i) Gupta Ankur and Manocha Amit Kumar, “Review of Model Order Reduction Techniques for Reducing an integer order large scale system”, Published in conference proceeding”, *International Conference on Recent Trends in Computer Applications and Information Technology*, MMDU, Mullana, April 19-20, 2019
- ii) Gupta Ankur and Manocha Amit Kumar, “Design of Real Time Grid Monitoring Using Cloud Computing”, *International Conference on Recent Trends in Computer Applications and Information Technology*, MMDU, Mullana, April 19-20, 2019
- iii) Manocha Amit Kumar and Gupta Ankur, “A REVIEW OF VARIOUS TECHNIQUES OF MODEL ORDER REDUCTION USED IN THE REDUCTION OF LARGE-SCALE CONTROL SYSTEM” In Recent Advancements in Computer Communication and Computational Sciences.

**b. National**

NIL

**12) Papers presented (Oral/ Poster):**

**a. International**

NIL

**b. National**

NIL

**13) Technical Events Organized (2018-2019):**

**a) Seminars/Conferences organized (2018-2019):**

NIL

**b) Workshops/ Faculty Development Program/Short term courses/Orientation courses/Refresher courses**

NIL

**c) Guest/Expert/Invited lectures/ Talks**

- i) Expert lecture by Mr. Sachin Hatta from UltraTech Cement on “Smart Cities” on 5<sup>th</sup> Oct 2018.
- ii) Celebrated Engineers Day by giving Technical Presentations and Technical Quiz on 14<sup>th</sup> Sept 2018.

**d) Industrial Visits**

- i. Students from all Departments visited Bhakra Dam, Nangal on 8<sup>th</sup> Feb 2019.
- ii. Students of B. Tech and BCA visited Web designed suit, Mohali on 22<sup>nd</sup> Feb 2019.

**e) Any Others Information**

NIL

## Details of Technical Events Organized (2018-19):

<b>Title:</b>	<b>Smart Cities</b>
<b>Dates:</b>	<b>5<sup>th</sup> October, 2018</b>
<b>Organizer</b>	<b>PIT, GTB Garh</b>
	<p>On 5th October 2018, an Expert Lecture on 'Smart Cities' was organized by PIT, GTB GARH MOGA. Er. Sachin Hatta, Technical Service Manager and his companion, Er. Sachin Rohilla. Ultratech Cement, Bathinda was speakers of the day. It was a productive lecture.</p>

**Fig. 1: “SMART CITIES” Technical Event**

### 14. New Facilities Created (2018-19):

- i) 200 Mtr Track
- ii) Cricket Ground

### 15. Milestones Achieved (2018-19):

- i. The Punjab Institute of Technology GTB Garh, Moga has secured Overall 3<sup>rd</sup> position in all Sports Category for session 2108-19 in MRSPTU University, Bathinda.
- ii. The College Malwai Gedha Team has won Silver Medal at Inter College Youth held at Desh Bhagat institute engineering and management, Moga on 25<sup>th</sup> Oct 2018 – 26<sup>th</sup> Oct 2018.

### 16. Future Plans (2018-19):

- i. To provide a conducive and inspiring environment for promoting advancement in technology and research by fostering freedom, empowerment, commitment, creativity and innovation.
- ii. To provide competent and highly skilled professionals and entrepreneurs to meet the requirements of the industry and society for discovery and dissemination of knowledge.
- iii. To inculcate high moral, ethical and professional values and standards amongst the students.
- iv. To promote research and development in various fields of technical education and establishment of Centres of Excellence in collaboration with national and international institutions, industries and agencies



**17. Any Four Photographs (With Captions) of the department facilities (2018-19).**

- i. **Accommodation & Transportation:** The campus is having residential facilities for students, faculty and staff. Institute will provide transport facility to the students from the region of 25 Km radius on rate contract.
- ii. **Guest House:** The campus has its own guest house located adjacent to the Academic Block.
- iii. **Library:** College has a very modern, well equipped library which offers wide range of materials and books on various subjects. It is constantly upgraded with latest materials that students and teachers need.
- iv. **Sports:** The Campus has various Sports Grounds for outdoor & indoor sports such as Basketball, Football, Cricket and Volleyball and other indoor Sports facilities such as Badminton etc.
- v. **Medical:** The Campus has First Aid Emergency Facility. Medicines are provided free of cost to students.
- vi. **Students Common Room:** There is a separate common room with good seating arrangement and ambience for the students.



**Fig. 2: 200 m Track**



**Fig.3: library**



**Fig. 4: Cricket Ground**



**Fig. 5: Discuss Throw Ground**



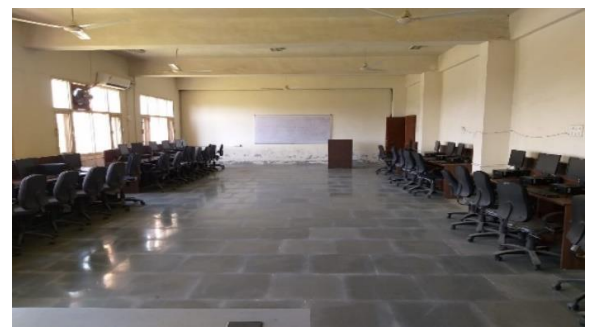
**Fig. 6: Refrigeration and Air Conditioning Lab**



**Fig. 7: Concrete Technology Lab**



**Fig. 8: Machine Lab**



**Fig. 9: Computer Lab**



**Fig. 10: Strength of Material Lab**



**Fig. 11: Fluid Machinery Lab**

**18. Photographs related to department activities (2018-19)**



**Fig. 12: Refrigeration and Air Conditioning Lab**



**Fig. 13: Concrete Technology Lab**



**Fig. 14: Machine Lab**



**Fig. 15: Computer Lab**



**Fig. 16: Strength of Material Lab**



**Fig. 17: Fluid Machinery Lab**



- vii. **Voter Awareness Campaign:** A camp under NSS activity for “VOTER AWARENESS CAMPAIGN” was held on 21/02/19 at 02.00pm in our campus. Dr. Amit Kumar Manocha and Er. Kulbeer Singh guided the students that how they can register themselves as voters.
- viii. **Plantation and Maintenance of Tree:** A camp under NSS activity for “PLANTATION AND MAINTENANCE OF TREE” was held on 25/02/19 at 10.00am in our campus. In this event, the NSS VOLUNTEER planted 100 trees in college campus and maintenance of plants was also done.
- ix. **Workshop on “Life Skill & HIV/AIDS and Awareness of Drug Menace”:** A Workshop on “Life Skill & HIV/AIDS and Awareness of Drug Menace” under NSS was held on 27/03/2019 at 10.00am. This workshop was conducted with Sh. Narinder Kumar (Community AIDS Educator & State Awardee).
- x. **Drug De-addiction Rally:** A “Drug De-Addiction Rally” was organized under NSS in Baghapurana. This rally covered almost all Baghapurana City. All faculty members and more than 100 students were present in this rally.

**19. Any other achievement of the from 1<sup>st</sup> July 2017 to 30<sup>th</sup> June 2018**



**Fig. 20: Won Bronze Medal in Volleyball Tournament**



**Fig. 21: Won Bronze Medal in Cricket Tournament**



**Fig. 22: 4<sup>th</sup> Athletics Meet at MRSPTU**



**Fig. 23: Won Bronze Medal in Youth Festival**

- i) The College Volleyball Team has won Bronze Medal at inter college Tournament held at MRSPTU, Bathinda on 7<sup>th</sup> Feb 2019- 8<sup>th</sup> Feb 2019.
- ii) The College Cricket Team has won Bronze Medal at Inter College Tournament held at MRSPTU, Bathinda on 13<sup>th</sup> Feb 2019 -19<sup>th</sup> Feb 2019.
- iii) The College Athletic Team has won 01 Silver Medal, 02 Bronze Medals at 4<sup>th</sup> inter college athletic tournament held at MRSPTU, Bathinda on 15<sup>th</sup> March 2019 -16<sup>th</sup> March 2019.
- iv) The College Malwai Gedha Team has won Silver Medal at Inter College Youth held at Desh Bhagat Institute Group of Institution, Moga on 25<sup>th</sup> Oct 2018 – 26<sup>th</sup> Oct 2018.
- v) The Punjab Institute of Technology, GTB Garh, Moga has secured overall 3<sup>rd</sup> position in all Sports Category for session 2108-19 in MRSPTU University, Bathinda.
- vi) The College students have won Silver Medal in Quiz Competition at inter zonal youth festival held at Desh Bhagat institute engineering and management, Moga on 25<sup>th</sup> Oct 2018 – 26<sup>th</sup> Oct 2018.