

Department of Electronics and Communication Engineering

ECE 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 major diversification initiative by the college, 25 years after its establishment. The department is currently running Bachelors and Masters of Technology courses in Electronics and Communication Engineering and has around 10 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 laid a sound foundation as well as the cream of students of the region, who have spread their wings all over the globe. Since, its inception, the department has been giving a great emphasis on the overall development and improvement of its students and staff.

Faculty Achievements:

Prof. Ameeta Seehra, HOD, ECE department, GNDEC is Editorial Board member of International Conference on Innovative Computing Communication(ICICC-2020) on 21-23, Feb, 2020



Prof Gurjot Kaur, Prof Simranjit Kaur, Prof Preeti Pannu and Prof Gurpurneet Kaur, Department of Electronics has successfully completed SWAYAM NPTEL course for July-Nov 2019 duration.

Dr. Narwant Singh Grewal, Electronics and Communication Department has reviewed papers of some reputed journals includes PIER, OPTIK and International Journal of Electronics in the duration of Jan 2019 - Dec 2019.



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Dr. Navneet Kaur and Dr. Harsimranjit Singh Gill, Assistant Professor, Department of Electronics and Communication Engineering, awarded with PH.D degree in the year of 2019 from I.K Gujral Punjab Technical University.

Dr. Baljeet Kaur and Dr. Munish Rattan, Electronics and communication Engineering Department, has successfully reviewed papers for International Conference "INDIACom-2019" held on March 13-15, 2019.



Dr. Baljeet Kaur, Electronics and communication Engineering Department delivered expert talk on "Recent trends in wireless communication and SDR" on June 12, 2019 during six days TEQIP sponsored Faculty development program on "Enabling technologies for optical and wireless communication networks" organized by Department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from June 10-15, 2019.

Prof Tarandeep Singh, Electronics and communication Engineering Department delivered expert talk on "Essentials of Machine Learning Algorithm" on Feb 6, 2019 during five days TEQIP sponsored Short term course on "Machine Learning applications in Engineering" organized by Department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from Feb 04-08, 2019.



Prof Harminder Kaur, Electronics and communication Engineering Department delivered expert talk on "Recent trends in wireless communication and SDR" on June 11, 2019 during six days TEQIP sponsored Faculty development program on "Enabling technologies for optical and wireless communication networks" organized by Department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from June 10-15, 2019.

Prof Kuldeepak Singh and Prof Gurinder Singh, Electronics and communication Engineering Department delivered hand on sessions on "Optisystem Software" on June 12, 2019 during six days TEQIP sponsored Faculty development program on "Enabling technologies for optical and wireless communication networks" organized by Department of Electronics and Communication Engineering, Guru Nanak Dev Engineering College, Ludhiana from June 10-15, 2019.

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Prof. Simranjit Kaur, Electronics and communication Engineering Department, organized [Expert Talk on Intellectual Property Rights on 28th Nov, 2019.](#)



FACULTY DEVELOPMENT PROGRAMME ORGANIZED

Enabling Technologies for wireless and Optical Networks

A six day TEQIP III sponsored FDP has organized by **Department of Electronics and Communication Engineering**, Guru Nanak Dev Engineering College, Ludhiana in sync with Atal Bihari Vajpayee Government Institute of Engineering & Technology, Pragatinagar, Shimla under Ministry of Human Resource Development (MHRD), New Delhi from June 10 to June 15, 2019 at Testing and Consultancy Hall, GNDEC, Ludhiana. Dr. Manoj Kumar, Keynote Speaker, talk about various Optical Networks, Optical Laws, Opto-electrical Conversions, Dispersion Management and WDM System. Dr. Baljeet Kaur, Assistant Professor, co-ordinator of FDP has enlightened about the course contents. Also, she stated that lab sessions planned for researchers for demonstration of Software Tools. Participation from all faculties of ECE department, some faculties of other departments, GNDEC Ludhiana and from various other Institutes.



Machine Learning Applications in Engineering

To address specific areas of Machine Learning, a five day short term course sponsored by Quality improvement program on " Machine Learning Applications in Engineering" from February 4, 2019 to February 8, 2019 was organized by the **Department of Electronics and Communication Engineering**, Guru Nanak Dev Engineering College, Ludhiana. The keynote speaker Dr. Kanav Kahol (Guest of honour), Chief Technical Officer in Pink Rickshaw Design Organization discussed numerous applications of Machine Learning designed by him serving in various Rural areas.



IETE STUDENTS' FORUM (ISF)

- ISF organized a Fun-Techno event named "**BRAIN WAVES**" on 18th of October, 2019. The event was guided by Raghu Mahendru (Convenor) D4ECB1. The organizers of this event were the following students Arshad Ali (D3ECA1), Puran Singh (D3ECB1) Bharat Trivedi (D3ECA1), Abhishek(D3ECA1) Jasraj Singh Kalsi(D3ECA2).The 1st positions were also given 2 Bluetooth speakers, as the exciting prize for this event.





Winners-

1st - Sharanjt Singh CE 1914103
Mukesh Kumar EE 1805310

2nd- Sanu Kumar ECE 1706772
Shubhangi Aryan ECE 1706782

3rd - Jaswant Singh CSE 1915040
Som Raj 1 ME 1930157

- IETE Students' Forum (ISF) of the department of Electronics and Communication Engineering organized a Fun-Techno event named "**Musicorum**". This event was planned to check memory test of the students and has given them the opportunity to showcase their listening and vocabulary skills. Winners were awarded with certificates.



Organisers-

- Shashank
- Raghu
- Komal
- Mohit
- Lisha

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Winners-

- Priya Kumari(D3ECE)
- Bhavan Singh(D3ECE)
- Dinesh(D3ECE)



FACULTY PARTICIPATION(SEMINAR/FDP/STTP/STC/WORKSHOP ATTENDED)

Dr. Balwinder Singh Dhaliwal, Dr. Munish Rattan, Prof Preeti Pannu and Prof Chahat Jain, Department of Electronics and Communication Engineering, GNDEC, Ludhiana has attended one day technical seminar on "New technology and Solutions" organized by Keysight Technologies at Hotel JW Marriott, Chandigarh on April 25, 2019 and enhance their knowledge on 5G systems.



Dr. Munish Rattan, ECE dept., GNDEC, Ludhiana has enhanced his knowledge at IIM Visakhapatnam by taking **Management Development Training** on "Professional Development Training Programme for faculty and Administration" organized by TEQIP-III from July 15, 2019-July 19, 2019.



Pedagogy Workshop on Effective Teaching

TEQIP-III Sponsored Workshop organized by Dept. of CSE, IIT Guwahati from 3, June-7, June 2019. Dr. Navneet Kaur, Department of ECE, GNDEC has joined this course. The main objective of this course was making "teaching-learning process" more effective by emphasizing on innovative practices. . Total 38 participants from various institutes of around 10 states were segregated into four groups for the panel discussion and group activity.



SPORTS

Sr. No.	Name of the tournament	Game	Dates	Positions	Name of the participants
1.	PTU Inter college Hockey Tournament (Men) at SBSTC, Ferozpur	Hockey	17-19 October ,2019	1st	Abhay Preet Singh- 1706699
					Gursimran Singh- 1606973
					Manpreet Singh- 1606990
					Resham Singh- 1917071
2.	PTU Inter college Lawn Tennis Tournament (Women) at IKGPTU, Kapurthala	Lawn Tennis	5-6 November, 2019	Participation	Jaspreet Kaur- 1606978
3.	PTU Inter college Cycling Tournament (Women) at GTBIMT,Dakha	Cycling	15 october, 2019	1 st	Gurmeet Kaur- 1606968
					Priya Sharma- 1818683
4.	PTU Inter college Basket ball Tournament (Women) at BBSBEC, Fatehgarh Sahib	Basket ball	10-12 october,2019	2 nd	Gurmeet Kaur- 1606968
					Priya Sharma- 1818683
5.	PTU Inter college Football Tournament (Men) at GNDEC, Ludhiana	Football	24-28 th October,2019	2 nd	Gursimran Singh- 1606973
					Parmveer Singh-1706756
					Sudeep Mondal- 1706786
6.	PTU Inter college Cross-country Tournament (Men)	Cross-country	21 September, 2019	2nd	Gursimran Singh- 1606973
7.	PTU Inter college Cross-country Tournament (Men)	Cross-country	21 September, 2019	1st	Gurmeet Kaur- 1606968
					Priyanka Sharma- 1735489
8.	PTU Inter college N/S Kabaddi Tournament (Men)	N/S Kabaddi	4-5 october,2019	3rd	Chandan Kumar Jha- 1607429
					Sudeep Mondal- 1706786
9.	PTU Inter college Volleyball Tournament (Men)	Volleyball	13-15 november,2019	Participation	Parmveer Singh-1706756
10.	PTU Inter college Badminton Tournament (Women)	Badminton	11-13 September	Participation	Kajal-1706737
					Shuchi
					Aditi Sharma
11.	PTU Inter college Volleyball Tournament (Women)	Volleyball	13-15 november,2019	Participation	Priya Sharma- 1818683

STUDENT CORNER



HARNOOR SINGH (D2ECB1)-1805402

- Western Group Song-Gold Medalist(Youth Fest)



SHUBHANGI ARYAN(D3ECB2)-1706782

- Winner of Inter college poetry(Youth Fest)



SHUBHANGI ARYAN(D3ECB2)-1706782

- Winner in Story telling at National Literary Fest(North India)



KABIR SINGH WARRAICH -D3ECA2-1706736

- Runner up in Inter College Competition organized by PCTE, Ludhiana
- Winner of Inter College Quiz Competition(PTU Jalandhar)- (Youth Fest)
- Inter College Quiz Competition(Bronze medal) -(PTU)

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JAYDEEP SINGH-1706729-D3ECA2

- **WINNER OF Inter College Competition by PCTE LUDHIANA**



JAGMEET SINGH-D3ECA2-1706728

- **Winner of Inter College Competition by PCTE LUDHIANA**
- **2nd runner up in Inter College Collage Making(PTU JALANDHAR- (Youth Fest))**



LAKHVIR SINGH-1805471-D3ECB2

- **RUNNER UP OF ELECTRO-WIZARD (ANAND UTSAV)**



SUDEEP MONDAL-1706786-D3ECB2

- **2nd position in PTU Inter College Football Tournament**
- **3rd position in PTU Inter College N/S Kabaddi Tournament**

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PRIYANKA SHARMA-1735489-D3ECB2

- 2nd position in Inter College Competition(4*400m)
- 2nd position in Cross-Country Tournament



AAKRITI-1805465-D3ECB2

- 2-day workshop held in TCC Seminar hall

Contribution of ECE Students to Events organized by Helps Welfare Society

Prof. Ameeta Seehra, HOD, Electronics and Communication Engineering associated with this Society.

Students involved:

1. Himanshu Kumar(D2ECE, 1805404)
2. Ashish Kumar (D2ECE, 1805380)

- **Swach Bharat Mission held on 2-10-2019**



- **Clothes Distribution to needy people**



ENTREPRENEURSHIP TRIP for FINAL YEAR STUDENTS(2016-2020)



STEP VISIT for Second, Third and Final year ECE Students

One day Entrepreneurship seminar conducted in the month of September for all students of ECE department, GNDEC, Ludhiana at STEP GNDEC, Ludhiana. During the visit, they impart knowledge about entrepreneurship and its importance in today's era. Students were encouraged to propose their ideas and can take grant from government of 15-18 Lakhs. They also took the students for visit to all workshops in STEP. Lastly, the TNP Coordinator guided the students regarding the ongoing projects in their organization and encourage them for new projects.



Final year



Third Year



Second year

PRE-ORIENTATION PROGRAMME

Schedule for 2 weeks Pre-Training Orientation Program (Sec- B Batch 2016-20)

Two-week pre-orientation programme for final year students before their six-months industrial training at GNDEC, Ludhiana for 2016-20 batch from June 3, 2019- June 19, 2019. It was designed to make students aware of Industry work, sensitize them to the on-going projects in various Government Sectors. Prof. Diljit Singh and Prof. Preeti Pannu, Assistant Professor, ECE Department, coordinators highlighted the benefits of this programme to UG students. Er. Kamal Bhalla, Deputy Executive Engineer, Punjab Communication Limited has delivered expert lecture on "Power Line Carrier Communication" during Pre-Orientation Program on 4 June, 2019. Er. Mandeep Singh, Founder, Pargas Integrators, Ludhiana highlights the need of "Cyber Security". Dr. H.S Jatana, Group Head, SCI/Engr 'G', SCL Mohali mentioned about "Introduction to VLSI". Also, Dr. Hitesh Pahuja, Project Engineer, CDAC Mohali has delivered expert lecture on "finFET based Memory design and challenges" and "Nano Scale Semiconductors Devices" on 13-14 June, 2019.

S.No.	Resource Person	Designation	Name of Company/Organization	Date
1	Common Session			03.06.2019
2	Er. Kamal Bhalla	Deputy Executive Engineer	Punjab Communication Limited, Mohali	04.06.2019
3	Er. Mandeep Singh	Founder	Pargas Integrators, Ludhiana	06.06.2019
4	Er. Mandeep Singh	Founder	Pargas Integrators, Ludhiana	10.06.2019
5	Dr. H.S. Jatana	Group Head, Sci/Engr 'G'	SCL, Mohali	11.06.2019
6	Er. Sanjeev Thapar	Deputy Executive Engineer	NetPlus, Ludhiana	12.06.2019
7	Dr. Hitesh Pahuja	Project Engineer	CDAC, Mohali	13.06.2019
8	Dr. Hitesh Pahuja	Project Engineer	CDAC, Mohali	14.06.2019
9	Er. Harsewak Singh	Senior Automation Engineer	Delta Electronics, Ludhiana	18.06.2019
10	Er. Harsewak Singh	Senior Automation Engineer	Delta Electronics, Ludhiana	19.06.2019

Schedule for 2 weeks Pre-Training Orientation Program (Sec- B Batch 2015-19)

Two-week pre-orientation programme for final year students before their six-months industrial training at GNDEC, Ludhiana for 2015-19 batch from Jan 7, 2019- Jan 18, 2019. It was designed for UG students awareness with Industry. Prof. Preeti Pannu and Prof. Diljit Singh, Assistant Professor, ECE Department, coordinators encourage students to utilize the facilities of GNDEC and time of Resource persons. Er. Harsewak Singh, Senior Automation Engineer, Delta Electronics, Ludhiana has delivered expert talk on "Programmable Logic Control" during Pre-Orientation Program at Department of Electronics and Communication Engineering, GNDEC, Ludhiana on 18 Jan, 2019. The other resource persons highlighted their domains and provide solutions to students queries. At the end of the day, Coordinators took Test of students for their assessment on the basis of their training modules.



Sr. No.	Resource Person	Designation	Name of Company/Organization	Date
1	Common Session			07.01.2019
2	Er. Mandeep Singh	Founder	Pargas Integrators, Ludhiana	08.01.2019
3	Er. Mandeep Singh	Founder	Pargas Integrators, Ludhiana	09.01.2019
4	Dr. Hitesh Pahuja	Project Engineer	CDAC, Mohali	10.01.2019
5	Dr. Hitesh Pahuja	Project Engineer	CDAC, Mohali	11.01.2019
6	Dr. H.S. Jatana	Group Head, Sci/Engr 'G'	SCL, Mohali	14.01.2019
7	Dr. H.S. Jatana	Group Head, Sci/Engr 'G'	SCL, Mohali	15.01.2019
8	Er. Harsewak Singh	Senior Automation Engineer	Delta Electronics, Ludhiana	16.01.2019
9	Er. Harsewak Singh	Senior Automation Engineer	Delta Electronics, Ludhiana	17.01.2019
10	Er. Kamal Bhalla	Deputy Executive Engineer	Punjab Communication Limited, Mohali	18.01.2019

HIGHLIGHTS OF TRAINING-I(TR-101)



Training-I organized for students of I year ECE(2018-2022 batch), GNDEC, Ludhiana to aware them with their specialization branch under TEQIP III for the duration 3 June, 2019 to 3 July, 2019. The training has conducted in ECE Department and, Prof. Preeti Pannu and Prof Kuldeepak Singh are the module coordinators as well as In charge of this training. Prof. Ameeta

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Seehra, HOD, ECE Department successfully conducted the training with her guidance and does all type of arrangements for various Lab sessions. This training aim to introduce the students to Electronics Components, Electronic Instruments, MATLAB Programming, ORCAD, TCAD, Basics of ARDUINO, Soldering process etc. All students enthusiastically participated in the training and made various projects on their course contents.

PLACEMENT DETAILS

Discipline	No. of Eligible	No. of Job offers	No. of double job offers	No. of Students	Maximum Package	Average Package
ECE	77	40	9	30	Samsung Research Institute, Noida-12L	3.6