

Vision of ECE Department

To produce skilled, socially –sensitized and globally competitive professional engineering graduates in the area of Electronics and Communication Engineering.

Mission of ECE Department

1. To provide quality and contemporary education through innovative teaching-learning process and effective resource utilization.
2. To develop responsive and socially sensitive engineer through research oriented practices.
3. To promote industrial collaboration for providing practical exposure leading to industry ready engineering graduates.
4. To open new vistas of learning for students through international collaborations.
5. To provide conducive environment through pre placement training and professional development activities for providing ample opportunities of placements, higher studies and entrepreneurship.

Recent trends: Te nanotechnology

Nanotechnology is being used in developing countries to help treat disease and prevent health issues. The umbrella term for this kind of **nanotechnology** is Nano-medicine. **Nanotechnology** is also being **applied** to or developed for application to a variety of industrial and purification processes. **Nanotechnology** is a field of research and innovation concerned with building 'things' - generally, materials and devices - on the scale of atoms and molecules. A nanometre is one-billionth of a metre: ten times the diameter of a hydrogen atom. The diameter of a human hair is, on average, 80,000 nanometres

International Conference on Innovations in Communication, Computing and Sciences (ICCS-2020)

CHANDIGARH ENGINEERING COLLEGE
Landran (Mohali), Punjab, INDIA

Welcomes all the Participants to the
INAUGURATION CEREMONY
of
2nd International Conference on Innovations in Communication Computing and Sciences (ICCS-2020)
July, 24-25, 2020

GUEST OF HONOR
Prof. Elangovan Rajagopalan
Former Scientist, ISRO,
Professor, IIT College, Chennai

CHIEF GUEST
Prof. K.K. Aggarwal
Chairman
National Board of Accreditation, India

GUEST OF HONOR
Dr. Ashwani Kumar
Associate Professor
Physics and Engineering College, Wino

KEYNOTE SPEAKER
Prof. Joan Lu
Department of Computer Science
School of Computing and Engineering
University of Huddersfield, U.K.

KEYNOTE SPEAKER
Dr. Haris Rudianto
Head, Advanced Materials Laboratory,
Department of Mechanical Engineering,
Goneadama University, Indonesia

KEYNOTE SPEAKER
Prof. Minvydas Ragulskis
Center for Nonlinear Systems
Department of Mathematical Modelling
Kaunas University of Technology, Kaunas

Organized by: **Department of Electronics and Communication Engineering & Department of Mechanical Engineering**

Two days International conference on “Innovations in Communication, Computing and Sciences (ICCS-2020)” was organized by Department of ECE on 24th and 25th July, 2020 in online mode. The main objective of the conference was to create awareness among students/researchers and discuss about the current advances in the broad domain of Engineering.

The inaugural session started with the lamp lightening ceremony by Satnam Singh Sandhu (Chairman, CGC Landran), Prof. K. K. Aggarwal, (Chief Guest, Chairman, National Board of Accreditation, India), Prof. Elangovan Rajagopalan (Guest of Honor, Former Scientist ISRO, Ex-colleague APJ Abdul Kalam), Prof. Joan Lu (Keynote Speaker, Department of Computer Science, School of computing and Engineering, University of Huddersfield, UK), Prof. Minvydas Ragulskis, (Keynote Speaker, Professor, Center for Nonlinear Systems, Department of Mathematical Modeling, Kaunas University of Technology, Kaunas, Lithuania, Dr. Ashwani Kumar (Guest of Honor, Professor, Monmouth College, USA), Dr. P. N. Hrisheekesha (Campus Director, CGC Landran), Dr. Rajdeep Singh (Director Principal, CEC), Dr. Ruchi Singla (Dean R & D, CGC Landran), Dr. Vinay Bhatia (HOD, ECE) and Dr. Rajesh Sharma (HOD, Mechanical Engineering Department, CEC).

This conference witnessed significant participation from academicians, researchers as well as experts from industry. A total of 200+ papers for ECE from international and national

researchers from reputed institutes like NITs, NITTTR. Amity University, Chitkara University, Jaypee University, VTU RRC, Research Scholar, Belgaum, Thapar University, MM University, Mulana, Chandigarh University, Guru Nanak Dev Engineering College Ludhiana, DCRUST Murthal, J.B pant college Delhi, MAIT Delhi, IP University Delhi, MIE Australia, CCE New Zealand, University of Johannesburg South Africa, IITs, Panjab University, PEC Chandigarh, affiliated colleges of IKGPTU, etc. were received. These manuscripts were rigorously peer reviewed and finally 75 papers from ECE have been selected for publication in UGC approved/SCOPUS indexed Journals.

The Chairman CGC, Satnam Singh Sandhu during his inaugural speech encouraged the researchers to innovate and focus their research for the betterment of the society. The Keynote speaker Prof. Joan Lu presented his expert talk on “Smart technology - Smart learning”, Prof. Minvydas Ragulskis talked about advancements in the computing and research technologies in future. Dr. Rajesh Khanna, Prof. Thapar University presented his talk on latest wireless technologies. Dr. P.N. Hrisheeksha congratulated the department for the grand success of the conference and guided to conduct integrated research in future.

Best Teacher Award



Dr Pooja Singhal and Dr Mohit Sachdeva received the best teacher award 2020.

Students Participation

Manasi Gupta participated in Technobuzz/Engineer's Day in CGC technical campus

PATENTS FROM ECE DEPARTMENT

S.No.	Student Inventor (s)	Title of Invention	PIE NO
1	Keshav Verma, Khushter Nizame,	ECOLOGICAL LIGHTING DEVICE	PIE 449
2	Vaibhav Sharma, Vaibhav bhardwaj, Surajbhan Singh, Suraj Sharma,	CROP YIELDING APPARATUS	PIE 512
3	Bharat Duhan, Prince Kumar, Ayush Kumar, Jaya Kumari,	BLOCKAGE DETECTION SYSTEM FOR PIPELINES	PIE 444
4	PRINCE KUMAR	CELLULAR PHONE CASING	PIE 560
5	Kiran Jyoti, Uma Shankar Agarwal , Vijay K Dhiman, Vikas Gupta.	DRUG DELIVERY DEVICE	PIE 568
6	Muskan Gupta, Naveen	APPARATUS AND MEHTOD FOR MONTIORING SOCIAL DISTANCING	PIE 633
7	Shubhender Shrivastav, Sourav Anand	SELF SANITIZING PERSONAL PROTECTION DEVICE	PIE 631
8	Arihit Sehgal, Sukant Gupta, Neeraj Kumar, Sangram Singh Thakur	MULTILAYERED SANITIZED DISPOSABLE MATTRESS	PIE 693
9	Gagandeep Kaur, Gurpreet Singh, Rahul Sharma, Vishakha Chaudhary	AUTONOMOUS MENDING SYSTEM	PIE 708
10	Ankita Aggarwal, Rishi, Sanjeev Kumar, Shivam Singh	TEMPERATURE REGULATING DEVICE FOR FOOTWEARS	PIE 649
11	Sidharth Verma, Shreyam Sharma,	COMFORTABLE HEAD PROTECTION DEVICE	PIE 612

RESEARCH PUBLICATIONS



1	HYBRID TWDM PASSIVE OPTICAL SYSTEM FOR NEXT GENERATION ACCESS NETWORKS
2	HIERARCHICAL CLASSIFICATION OF SATELLITE
3	IMAGE USING ANN CLASSIFIER
4	POWERING THE ELECTRIC VEHICLE WITH A DYNAMO USING WIND ENERGY
5	A VARIATIONAL APPROACH FOR MULTIFOCUS IMAGE FUSION IN DCT DOMAIN
6	A Novel Technique to Reduce Time Complexity for Solving the Electrical Circuit Using Lagrangian Formalism
7	Integration of Two Diode Model Photovoltaic Cell & Wind Energy System with Better Efficiency
8	Novel Chattering Alleviation Design For Nonlinear Systems With Mismatched Disturbances
9	A New Approach For K-Means Based Clustering Algorithm for Energy-Efficient Big Data Gathering Algorithm
10	Performance And Analysis Of Covid-19
11	In India For Spreading -A Mathematical Approach
12	Area-Delay-Power Efficient Fixed-Point LMS Adaptive Filter with Low Adaptation Delay
13	Hybrid TWDM Passive Optical System for Next Generation Access Networks
14	Unified Approach To Detect Covid-19 In Patients
15	<u>NOVEL CHATTERING ALLEVIATION DESIGN FOR NONLINEAR SYSTEMS WITH MISMATCHED DISTURBANCES</u>
16	UNIFIED APPROACH TO DETECT COVID-19 IN PATIENTS
17	A CHANGE DETECTION APPROACH FOR SAR IMAGES USING MODIFIED LOG RATIO AND MEDIAN FILTERING
18	MASTER EQUATION BASED NUMERICAL ANALYSIS OF SINGLE ELECTRON DEVICES
19	UNIFIED APPROACH TO DETECT COVID-19 IN PATIENTS
20	DETAILED ELECTROSTATIC AND ELECTROMECHANICAL ANALYSIS OF MEMS SHUNT SWITCH
21	HYBRID TWDM PASSIVE OPTICAL SYSTEM FOR NEXT GENERATION ACCESS NETWORKS

22	MEASUREMENT OF BIFURCATION FEATURES IN RETINAL FUNDUS IMAGES
23	SENSORS TECHNOLOGY AND POWER CONSUMPTION ISSUE IN HEALTHCARE ENVIRONMENT
24	CONGESTION CONTROL AND SECURITY ASPECTS IN WIRELESS BODY AREA NETWORKS
25	AN IMPROVED METHOD FOR THE DETECTION OF RETINAL BLOOD VASCULATURE IN COMPUTER-AIDED DIAGNOSIS OF HYPERTENSIVE RETINOPATHY
26	A Novel Technique to Reduce Time Complexity for Solving the Electrical Circuit Using Lagrangian Formalism

MESSAGE BY EDITOR

Usually we fail to appreciate the good deeds of many people and activities that happen around us as we are engaged in irrelevant talks and assumptions. It could all change if we just pause to think of what is our contribution to the society from which we have been gifted with this blessed life. The progress of the society is mainly depends on many people who are working behind the scenes, overtime round the clock planning things to the smallest. This newsletter will be a medium to provide proper acknowledgement and respect all of these efforts and its results.

Sincerely,

Chief Editor: Ms Ashima Kalra
Editor: Ms. Aanchal Gupta
Student Editor : Mahima, Tarishi