



# BITS AND BYTES

Dept. Of Electronics & Communication Engg.



# EDITORIAL DESK

## EDITOR'S MESSAGE

Greetings, Readers!

I am happy to share the second edition of the ECE Department's e-Newsletter "Bits and Bytes" with you. Our Department's primary goal is to inculcate for ambitious engineers to accomplish their objectives and goals, as well as to ignite their inquisitive minds in order to achieve excellence in the field of Electronics and Communication. I must thank our worthy Principal Dr. Manpreet Singh Gujral, and Head of the Department, Dr. Davinder Singh Saini, who have encouraged students to actively participate to this edition. I also applaud the students for their passionate participation in this initiative and its prompt completion. I appreciate the student committee's tireless efforts in making our e-Newsletter a success.

We welcome your feedback for this e-newsletter - our editorial board team would be there to assist.

Wishing you pleasant nostalgia, and Best wishes.

Dr. Shilpa Jindal  
Editor Departmental Newsletter

## TECH NEWS

Bharti Airtel , Reliance JIO and other telecom players will launch 5G services in many cities of India from January 2023 onwards including Chandigarh.

## **Publications**

### **International Conference:**

Rahul Narang (CO19548), Vanshita Bansal (CO19562), Vasu Goel (CO19563) and Dr. Shilpa Jindal submitted a research paper titled "Development of Green, Low-Cost Smart Crop Health Monitoring System Using IOT," which has been accepted for publication in the "International Conference on Technological Advancements: Stepping Towards Sustainable Development" ICTA 23, which will be held on 08-09 Feb 2023 at SVIET, Banur.

Dr. Irfan Ahmad Khan, et. al. presented a research paper on "Solar Energy: It's Incentives and Hurdles," which was published in the proceedings of the International Conference on Science for Sustainable Development (ICSD-2022), A.U. B'lore, India; from Dec. 9-10, 2022.

Dr. Irfan Ahmad Khan, et.al. presented a research paper on "IoT in Smart Grids: A Review," which was published in the proceedings of the International Conference on Science for Sustainable Development (ICSD-2022), A.U. B'lore, India; from Dec. 9-10, 2022.

Dr. Irfan Ahmad Khan, et.al. presented a research paper on "Fuel Cells and Electric Vehicles: A Comprehensive Review," which was published in the proceedings of the International Conference on Science for Sustainable Development (ICSD-2022), A.U. B'lore, India; from Dec. 9-10, 2022.

Dr. Irfan Ahmad Khan, et.al. presented research paper on "AI and ML enabled Smart Grids: A Review," which was published in the proceedings of the International Conference on Science for Sustainable Development (ICSD-2022), A.U. B'lore, India; from Dec. 9-10, 2022.

Dr. Anil Kumar Vaghmare, presented research paper on "BSS in Underdetermined applications using modified Sparse Component Analysis," which was published for the proceedings in the 2nd International Conference on Intelligent Vision and Computing (ICIVC 2022), Springer, Organized by NIT-Agaratala on 27th November, 2022

### **Book Chapter**

Dr. Shilpa Jindal, Contributed a chapter on "Green Optical Networks based on Machine Learning Techniques" in a Book titled "Green Communication Technologies for Future Networks" published by CRC Press, ebook ISBN 9781003264477, in Oct 2022.

Dr. Irfan Ahmad Khan, et. al., "IoT and UAV Technologies for Precision Farming during and Post COVID era: A Review," submitted an International Book Chapter on "Impacts of COVID-19 on Agricultural Sector (ICAS-2023), on an easy-chair, Green Economics Institute, U.K. whose abstract got accepted and a full chapter is to be published.

Dr. Irfan Ahmad Khan, et. al., "IoT Based Smart Controller for Agricultural Storage to Combat Impacts of COVID-19," submitted an International Book Chapter on "Impacts of COVID-19 on Agricultural Sector (ICAS-2023), on easy-chair, Green Economics Institute, U.K. whose abstract got accepted and a full chapter is to be published.

### **Reviewer(Journal /Conference)**

Dr. Anil Kumar Vaghmare, reviewed the technical papers submitted to the 1st International Conference on Applied Data Science and Smart Systems (ADSSS-2022). The conference was held on 4th - 5th November 2022 at Chitkara University, Punjab (India).

## **FDP/STC/Workshops /Webinars Attended**

Dr. Parvinder Kaur participated in and successfully completed the Professional Development Programme on 'Implementation of NEP 2020 for University and College Teachers' held from 07-15 October 2022 conducted by INDIRA GANDHI NATIONAL OPEN UNIVERSITY, New Delhi.

Dr. Shilpa Jindal participated in and successfully completed the Professional Development Programme on 'Implementation of NEP 2020 for University and College Teachers' held from 07-15 October 2022 conducted by INDIRA GANDHI NATIONAL OPEN UNIVERSITY, New Delhi.

Dr. Dinesh Sharma participated in and successfully completed the Professional Development Programme on 'Implementation of NEP 2020 for University and College Teachers' held from 07-15 October 2022 conducted by INDIRA GANDHI NATIONAL OPEN UNIVERSITY, New Delhi.

Dr. Anil Kumar Vaghmare, Attended Webinar on NEP-2020 Implementation Plan: "Promotion of Indian Knowledge Systems" scheduled on 26th November 2022 from 10.00 A.M to 11.30 A.M, which was organized by UGC-Human Resource Development Centre (HRDC), JNTUH, at Hyderabad.

Dr. Anil Kumar Vaghmare, Attended Webinar on NEP-2020: "Changing Role of Teachers" on 06th September 2022 from 11.00 A.M to 12.30 P.M, which was organized by UGC-Human Resource Development Centre (HRDC), JNTUH, at Hyderabad.

Dr. Anil Kumar Vaghmare, Attended Webinar on NEP-2020 Implementation Plan: "Technology Use and Integration" on 03rd September 2022 from 11.30 A.M to 01.00 P.M., was organised by UGC-Human Resource Development Centre (HRDC), JNTUH, at Hyderabad.

# ACHIEVEMENTS

## **2019-2023 Batch (Present Students in 4th year)**

Anmol Gupta (CO19512) along with his Team-Mates Chaitanya Khurana ( CO19520) and Muskan Vaish ( CO19544) Won first place at the IPD EXPO 2022, on November 23rd, 2022 at CCET (Degree Wing), Chandigarh.

Anmol Gupta (CO19512) conducted a seminar with his Team-Mates Muskan Vaish (CO19544), Arjun Gupta (LCO20372), Divyanshu (CO20520), Manya (MCO21376), Mansirat Kaur (CO21545) at Govt. Model School, Manimajra on "Introduction to Robotics," for students (7th to 10th grade) On November 5, 2022.

Vanshika (LCO19580) published a research paper titled " Fuel Cells and Electric Vehicles " at the International Conference on Science for Sustainable Development (ICSSD -2022) on December 09-10, 2022.

## **2020-2024 Batch (Present Students in 3rd year)**

Ruman Sidhu (CO20550) had Secured first position for Short-Story "The Mist" in Short Story Writing Competition at PU Youth Festival 2022, held at DAV, Sec-10, Chandigarh on November 2nd, 2022.

Ruman Sidhu (CO20550) was recognised by Writer's Moment-Creative Writing Contest Season 2, for her piece of work on the Short-Story "The Mist".

Inderjeet Singh (CO20528) Won first prize at the IPD EXPO 2022, on November 23rd, 2022.

Shikher Gupta (CO20559) Won second prize at the IPD EXPO 2022, on November 23rd, 2022.

Harsh Kashyap (CO20527) Won third prize at the IPD EXPO 2022, on November 23rd, 2022.

## **2021-2025 Batch (Present Students in 2nd year)**

Namay Chaudhary (MCO21574) Won first prize at the IPD EXPO 2022, on November 23rd, 2022.

Namay Chaudhary (MCO21574), won the first prize in Drishyam 4.0, a "Festive Photography Competition" held by Achintyam, the official Photography and Videography club of CCET-26, Chandigarh.

## **CAT SCORE 2022**

The Department Congratulates Sahil Arora (CO19551) who secured CAT percentile of 99.89 and Sagaljit Singh Pasricha (CO19550) who secured CAT percentile of 99.76 .

## **Start UP**

Two Students of 4th Year Batch initiated their StartUps.

The Startup "Guruvinayak" is initiated by Guruvinayak Singh Budhwar (CO19527). This Startup is a Visual Design and Art oriented that deals with product design , Traditional Art to UX /UI Design.

The StartUp "Nephics" is initiated by Naman (CO19545). It is a web-based startup, focusing mainly on establishing a brand's online presence through website development, graphic designing, web designing, social media management, and much more.

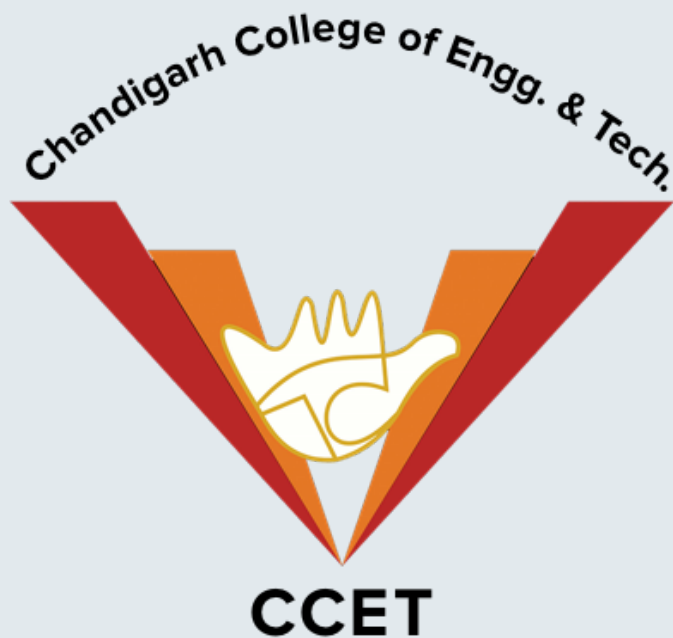
## **Best Paper Award**

Sahil Arora (CO19551), Shobhna Manjhu (CO19552), Vaibhav Kushwaha (CO19560) and Dr. Dinesh Sharma were Awarded the Best Paper Award in the 3rd International Conference on Communication, Computing & Industry 4.0-2022 (C2I4-2022) for the research paper titled - "Analysis and Development" of Ultra-wideband flexible wearable textile antenna for wireless body area network.

## **PU CRIKC-CII PROJECT EXHIBITION PU CHD**

Sahil Arora (CO19551), Shobhna Manjhu (CO19552), and Vaibhav Khuswaha (CO19560) exhibited their project namely "Slotted wheel microstrip patch antenna for RF energy harvesting" at CRIKC-CII Exhibition cum Industry- Academics Meet, Punjab University, Chandigarh on 12 Nov 2022.

Rahul Narang (CO19548), Vanshita Bansal (CO19562) and Vasu Goel (CO19563) exhibited their project namely "Development of Green Low-Cost Crop, Health Monitoring System using IoT" at CRIKC- CII Exhibition cum Industry- Academics Meet, Punjab University, Chandigarh on 12 Nov 2022.



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