23/10/2021 - IEEE Xtreme 15.0

IEEE Xtreme is a global challenge in which teams of IEEE Student members – advised and proctored by an IEEE member, and often supported by an IEEE Student Branch – compete in 24 hours against each other to solve a set of programming problems. Points are awarded based on how the problem was solved, the time it took, and its difficulty. The competition is free, but IEEE Student Membership is required to participate.

From GCT IEEE Student Chapter, four teams participated in the competition and secured the top 20% rank worldwide.

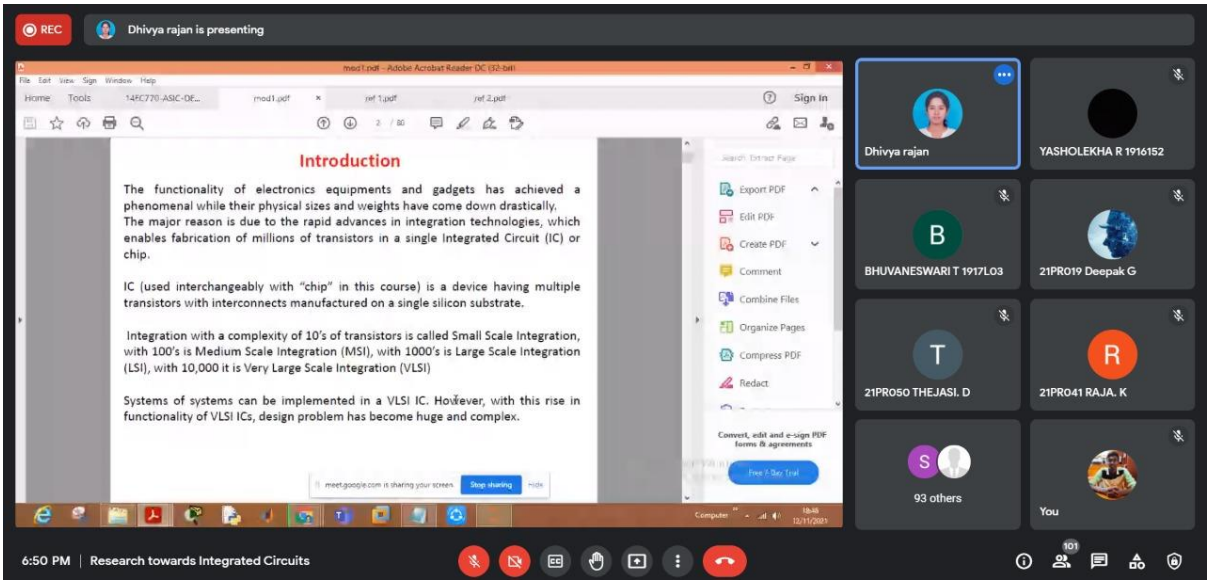
Rank	Team	Score (Penalty)	University	Region
1 (165)	ChampionTeam	711.36 (2770)	Univ of Electronic Science & Tech of China	(R10) Asia and Pacific
2 (641)	ChadChampions	274.56 (4496)	Misr University for Science & Technology	(R8) Africa, Europe, Middle East
3 (975)	oneRAMpiece	148.95 (3061)	Sudan University of Science and Technology	(R8) Africa, Europe, Middle East
4 (993)	OulampiLBeji	146.79 (868)	Nat'l Inst of Applied Sci & Tech (INSAT)	(R8) Africa, Europe, Middle East
5 (1104)	Ampierre	119.44 (1563)	Government College of Tech-Coimbatore	(R10) Asia and Pacific
6 (2116)	Championnes	12.05 (789)	Int. Multidisciplinary School EPI Sousse	(R8) Africa, Europe, Middle East
7 (2237)	XtremeChampions	7.89 (469)	Imam Mohammad Ibn Saud Islamic University	(R8) Africa, Europe, Middle East
8 (2671)	HotChampions	0	Faculty of Science of Tunis - FST	(R8) Africa, Europe, Middle East

30/10/2021 - IOT in Health Care

GCT IEEE Student Branch organized a webinar on "IOT in healthcare" with Dr. K. Ranjith Kumar, Director CCTI, JCI Vice President, Zone trainer, JCI India had spoken about the various roles of IoT in healthcare.

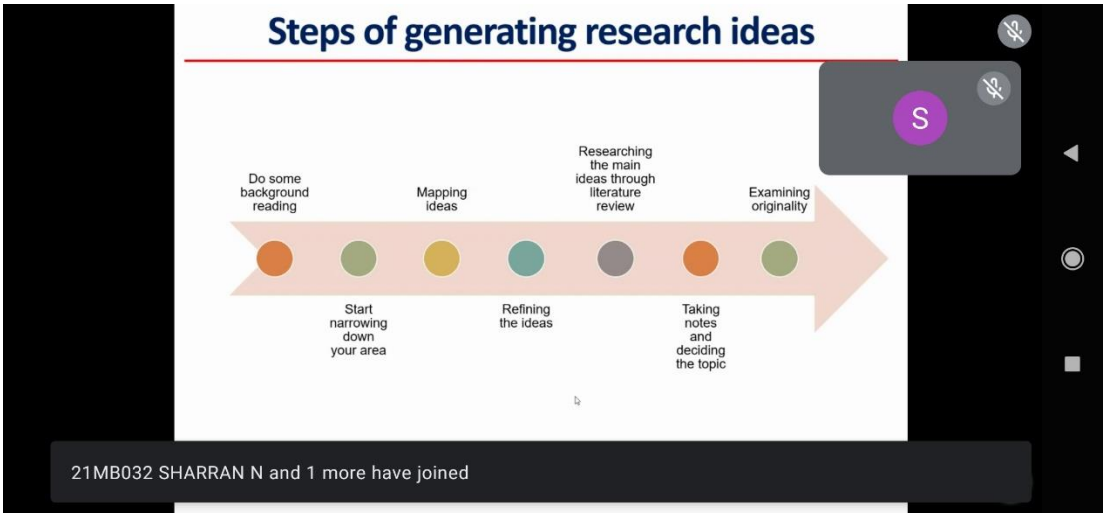
12/11/2021 - Research Towards Integrated Circuits

GCT IEEE Student Branch organized a webinar on "Research towards Integrated Circuits". Dhivya Lakshmi, Research Scholar, Wireless Communication with Artificial Intelligence, Anna University had spoken about the Research towards Integrated Circuits. Research during UG, identifying the research problem, brainstorming the solution, technical writing, and documentation methodology



20/11/2021 - Techniques In Developing Innovative Research Ideas

GCT IEEE Student Branch organized a webinar on "Techniques in Developing Innovative Research Ideas" by Mugilan T, Research Scholar, Department of Mechanical Engineering, GCT Coimbatore had spoken about developing innovative Research ideas for B.E/ B.Tech students in research and elaborated the analytics, and Patents Filing.



Timeline of SKYNET Hackathon

1)08/01/2022-Webinar on Current trends and Research on IoT

As a part of the Skynet Training session, GCT IEEE SB organized a webinar on “Current trends and research in IoT”. Dr. Vimalaththan Rathinasabapathy, a data scientist has spoken about developing innovative research ideas in IoT.

Points discussed in the webinar

- Current trends/research in IoT
- Ways to tackle problems with IoT
- Finding and solving the problem statements in IoT
- Merging IoT with AI

A quiz was conducted based on the session and the top 3 contestants were awarded with cash prizes.

2)22/01/2022-Webinar on Automotive Industry and Beyond

The GCT IEEE Student Branch organized a Webinar on "Automotive industry and beyond". Mr. Lekshmana Perumal S, Graduate Engineer Trainee - Mahindra, and Mahindra & Mr. Akash Pavan, Analyst - Axion were the speakers of the webinar. In this webinar, the role of the automotive industry in the modern world, job opportunities, and required skills were explained.

A quiz was conducted based on the session and the top 3 contestants were awarded cash prizes.

3)30/01/2022-Webinar on Solving age old problems in a new ML way

With increasingly data-driven decisions in today's world, Machine Learning and Artificial Intelligence have become essential skills. Many industries are driven by AI and ML. As part of the SKYNET training session, GCT IEEE Student Branch organized the AI BOOTCAMP. Speaker: Mr. Laxminarayanan G, Management consultant, business consultant, TEDx consultant.

4)31/01/2022-Abstract Submission for SKYNET

In the first phase of SKYNET, the participants were asked to form a team of three members. They were instructed to choose a real-time problem and find an effective solution for it. Participants submitted their ideas in an abstract explaining their solutions to their respective problems. More than fifty abstracts were received and 30 were selected for the second phase by the jury panel.

5)08/04/2022-Paper Presentation

In this phase, the paper presentation was conducted for the selected teams in offline mode. Each team presented their ideas in a fascinating way to the Judges. In this round, participants explained their idea completely within the given time. This whole event was streamed live on YouTube. Nearly 26 teams presented their ideas in this phase out of which 13 teams advanced to the final phase.

6)11/05/2022-Tech Expo

On the occasion of National Technology Day, "TECH EXPO-2022" - A technical exhibition to showcase the skills and knowledge of students held at GCT. On behalf of the GCT IEEE Student Branch, teamwork, and accomplishments were presented. Skynet Phase 3 participants displayed their appealing prototype based on the round 2 presentations.

7)27/05/2022-Prototype Demonstration and Valedictory of SKYNET

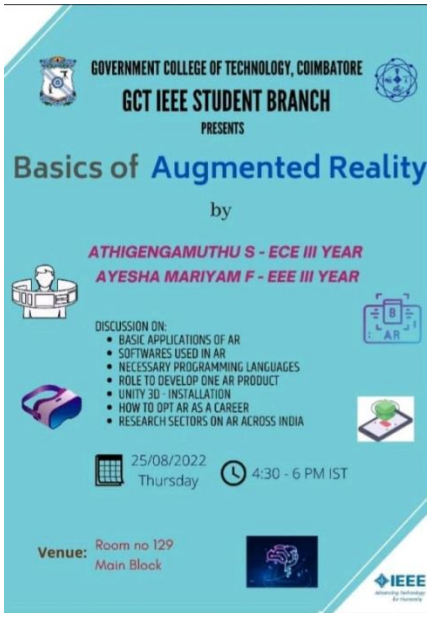
This was the final phase of the SKYNET in which the qualified teams demonstrated their ideas as a prototype. For guiding each team, mentors were assigned and for making prototypes, funds were provided by the IEEE SB GCT. 14 days were provided for the participants to submit their prototypes. On the day of the grand finale, top three participants were given cash prizes.

25/08/2022 – Basics of Augmented Reality

One technology that's truly shaking up the landscape is augmented reality (AR), which superimposes an image onto a user's view of the real world and enhances it with sound, touch, and even smell. The GCT IEEE Student Branch has organized a seminar on "Basics of Augmented Reality", the speakers of the seminar were Aadhi ash from ECE third year and Ayesha Mariyam from EEE third year.

Points discussed in the seminar,

- What is AR/VR/MR
- Industrial applications
- Marker based AR
- Marker less AR
- Loco AR
- #Weber
- Softwares (#unity3d & #unrealengine)
- #Vitoria
- Programming languages (#three js & #arjs)



15.09.2022 – Batteries of the Future: Better Batteries for a Better Future

The GCT IEEE Student branch has conducted a seminar on “Batteries of the Future: Better Batteries for a Better Future”. The speakers of the seminar are Chandrasekhar S, ECE (third year) and Kishore Kumar V, EEE(Second year). Batteries play a important role in storing of energy and helpful in converting them. In addition to that batteries used in hybrid vehicles play a major role.

Topics covered in seminar:

- ✓ Battery capacity
- ✓ State of charge
- ✓ Types of battery used to store solar power and their pros , cons
    - Lead acid battery
    - Lithium ion battery
    - Nickel cadmium battery
    - Flow battery

22/09/2021 - DelvIt

DelvIt is a group discussion session based on the problems faced in the society from technical point of view. In this session, students were discussed on “A Discussion on Innovative solution to tidy up the Seashore”. This session was modulated by Narendran S and Balaji OSP from EIE department final year students. Discussion was classified into 3 different ways, separating the waste product by using sieve from the sand. Next part was to collect the waste and combust those products at that instance

Session was so much interactive and more informative. Many interesting and innovative ideas were brought into discussion. From this session, inter-disciplinary skills were enhanced. At the end a volunteer came up to stage and summarized about discussion. Modulators were made there point to the discussion from both technical and management point of view. The feedbacks was collected from the students to upgrade the session in future. The photos which taken during the session were attached below.

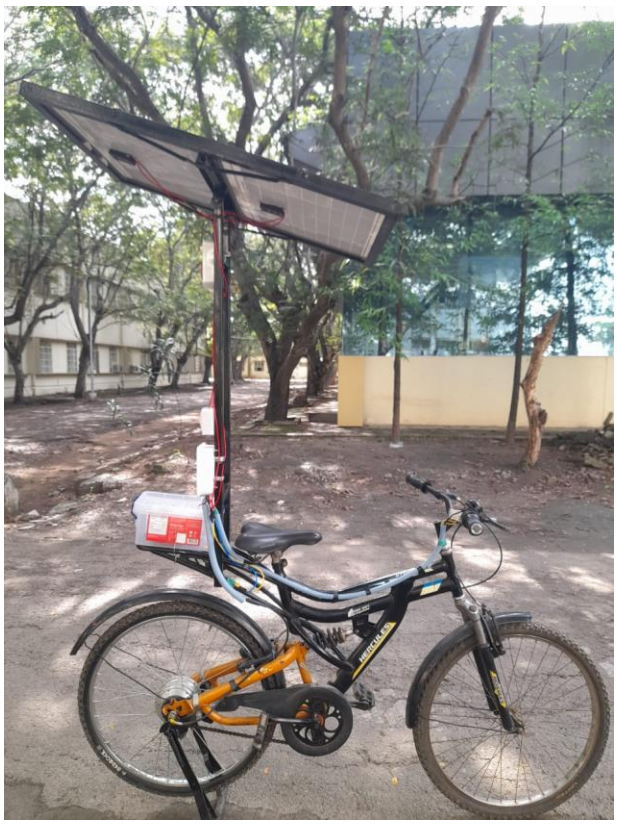
GCT IEEE SOLAR SQUAD:

Awarded for outstanding success in the fields of science and technology is the GCT IEEE Student Branch. The Student Branch's vision and mission, which propel it forward, set lofty goals for it. The branch team is credited for pulling off this feat. The team is divided into three societies to work in: solar, robotics, and internet of things.

The GCT IEEE Solar society seeks to encourage the adoption of solar-based technologies in the real world. New inventions are currently being developed by the solar society.

Zero Cycle

Zero cycle is the Hybrid Electric Vehicle which has Zero Emission and Zero grid power consumption with powerful energizing source overhead. The cycle can ride up to 15 kilometers using a battery backup and an extended range based on solar irradiance. A maximum load of 120 kg can be pulled by the cycle without slowing down the vehicle's speed. We can operate the cycle with the help of the battery backup even in the presence of clouds and at night. Though it's a cycle, we can pedal easily and comfortably. The weight of the bicycle is easily doable even with all the extra equipment on the vehicle. The vehicle prototype was finished by the GCT IEEE Solar team, which is made up of members from many departments including mechanical, EEE, ECE, and EIE, after five months of arduous construction. This cycle's overall design is transferable to all other sorts of cycles. This cycle's overhead structure is validated in real time and is stable on all types of roadways.

This cycle aids in lowering environmental carbon emissions. Even if the battery can be charged by the panels, there is no need to use the grid for charging, which relieves pressure on the power networks. There are no running costs for this cycle. Overall, this is how the HEV is designed ergonomically. Overall cost of the vehicle makes it affordable by the common man of our society for their satisfactory needs.

The squad's mission is still ongoing with numerous initiatives that will benefit society in the near future, including solar charging stations for public usage and solar vehicles with IoT capabilities.