IEEE STUDENT BRANCH

Government Engineering College – Barton Hill, Thiruvananthapuram

SUMMARY OF ACTIVITIES CONDUCTED IN 2022

This report includes all Student Branch activities from 26 January 2022 to 04 January 2023.

1. **Annual General Body Meeting**. This was the occasion that marked the transfer of power from the former execom to the current execom and also witnessed the distribution of prizes to the best volunteers . *Date*: 26/01/2022. *Participants*: 64

IEEE Computer Society SBC GEC BARTON HILL

1. **Workshop:** Exploring Git and GitHub - A Workshop **Session** handled by Aniket Pal which provides an overview of Git, GitHub and its applications. *Date*: 13/02/22. *Participants*: 60
2. **Webinar: Introduction to** Python – Conducted in collaboration with Coder's Hub to teach the basics of Python. *Date*: 12,19/02/22. *Participants*: 22
3. **Initiative**: Keynote E.19. *Date*: 06/03/22.
4. **Contest:** COGNITIONIS 2.0 #2 – Quiz as part of COGNITIONIS 2.0 on the topic Integrated Approach in Science and Technology for a Sustainable Future. *Date*: 09/03/22. *Participants*: 60

5. **Initiative:** Ryan and Ria <Energy Report>. *Date*: 13/03/22.
6. **Initiative:** #include Tip 2.9 – Tip on using logarithms to find number of digits. *Date*: 20/03/22.
7. **Initiative:** INFOBYTES **–** on AMECA by Engineered Arts – Technology that almost feels human. *Date*: 27/03/22.
8. **Initiative:** Keynote E.20. *Date*: 06/04/22
9. **Initiative: Ryan and** Ria <Instant Locking>. *Date*:13/04/22.

10. **Contest:** Quizzards – launched a monthly quiz series on WhatsApp. *Date*: 15/04/22.
11. **Initiative:** #include Tip 3.0 – Swapping of two numbers using XOR operand. *Date*: 21/04/22
12. **Initiative:** INFOBYTES – AQUANAUT – The underwater transformer. *Date*: 28/04/22.
13. **Initiative:** Keynote E.21. *Date*: 06/05/22.
14. **Initiative**: Ryan and Ria <Problem Step Recorder>. *Date*: 13/05/22.
15. **Initiative**: #include Tip 3.1 – Use of STL Containers
16. **Initiative**: INFOBYTES – Padrone Rings – Transform your finger into a cursor. *Date*: 28/05/22.
17. **Initiative**: Keynote E.22. *Date*: 08/06/22
18. **Initiative**: Ryan and Ria <Reliability and Performance Monitor>. *Date*: 14/06/22.
19. **Webinar**: A Snapshot on C Programming – a collaboration with Coder's Hub completely based on KTU Syllabus. *Date*: 20-22/06/22. *Participants*: 40

20. **Webinar**: Making Your Professional Ecosystem Using LinkedIn – a collaboration with Microsoft Learn Student Ambassador on the importance of LinkedIn today. *Date*: 23/06/22. *Participants*: 35
21. **Initiative**: #include Tip 3.2 – Checking if number is even or odd using & operator. *Date*: 21/06/22.
22. **Initiative**: INFOBYTES – Anzene Energy Block. *Date*: 28/06/22.
23. **Initiative**: Keynote E.23. *Date*: 06/07/22
24. **Workshop**: Advanced Persistent Threat and IOT Security – This was an offline Workshop handled by GTEC Computer Education, Palayam. *Date*: 09/07/22. *Participants*: 33
25. **Initiative**: Ryan and Ria <Preset Shortcut Keys>. *Date*: 14/07/22.

26. **Workshop**: Hacktok '22 – a Cyber Security Workshop with RedTeam Hacker Academy, Trivandrum. *Date*: 23/07/22. *Participants*: 40

27. **Contest**: COGNITIONIS 2.0 #5 – Quiz as part of COGNITIONIS 2.0 on the topic Mainframe Computers. *Date*: 19/07/22. *Participants*: 90
28. **Initiative**: #include Tip 3.3 – Arithmetic Left Shift and Right Shift. *Date*: 20/07/22.
29. **Initiative**: INFOBYTES – Revopoint MINI. *Date*: 28/07/22.
30. **Initiative**: Keynote E.24. *Date*: 06/08/22.
31. **Initiative**: Ryan and Ria <Document Design Mode>. *Date*: 13/08/22.
32. **Initiative**: #include Tip 3.4 – The Goes To Operator. *Date*: 22/08/22
33. **Initiative**: INFOBYTES – Fingerbot Plus. *Date*: 27/08/22.
34. CATALYST – A career orientation series with IEEE RAS SBC GEC Barton Hill.

35. **Contest**: Placement Test and Mock Interview. *Date*: 06/09/22. *Participants*: 32
36. **Webinar**: Pursuing MS – All you need to know. *Date*: 06/09/22. *Participants*: 44
37. **Webinar**: Placements and Off Campus Opportunities. *Date*: 05/09/22. *Participants*: 12
38. **Initiative**: Keynote E.25. *Date*:10/09/22
39. **Initiative**: Ryan and Ria <View Network Status>. *Date*: 16/09/22.
40. **Initiative**: #include Tip 3.5 – Checking if bit at nth position is set or unset. *Date*: 26/09/22.
41. **Webinar**: IEEEXtreme 16.0 Ambassador Talk – to know more about the benefits of taking part in IEEE Xtreme. *Date*: 30/09/22. *Participants*: 60
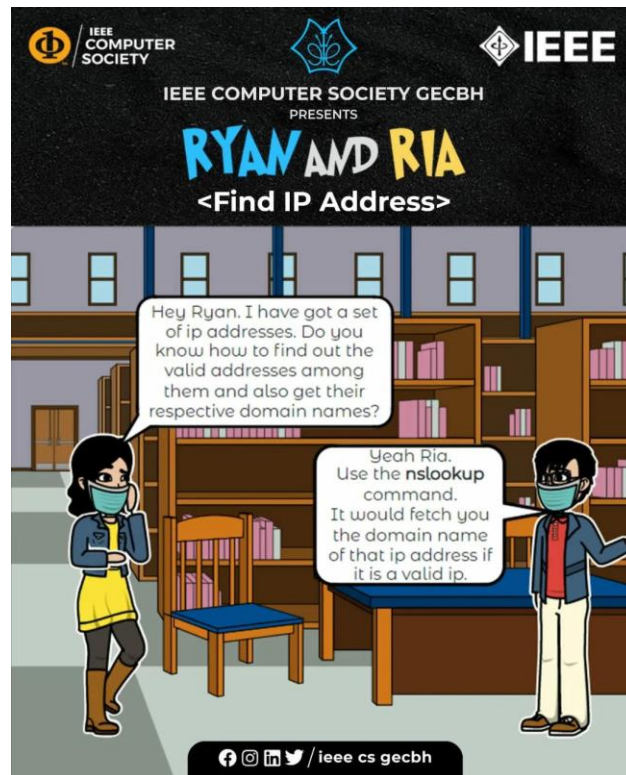
42. **Initiative**: INFOBYTES – Mars Green Planter. *Date*:30/09/22.
43. **Workshop**: Workshop on Filter Making Using Spark AR – collaboration with IEEE CS Kerala Chapter as part of INFORMATYKA 2.0. *Date*: 02-03/09/22. *Participants*: 45
44. **Initiative**: Keynote E.26. *Date*: 06/09/22.

45. **ALTERDIME** – Flagship Event

46. **Contest**: TECHNOBATE – Technical Debate Competition. *Date*: 15/09/22. *Participants*:
47. **Workshop**: Workshop on Gamification. *Date*: 16/09/22. *Participants*: 50
48. **Contest**: CODEX – online coding competition. *Date*: 16/09/22. *Participants*: 22
49. **Workshop**: Workshop on Machine Learning. *Date*: 17-18/09/22. *Participants*: 52
50. **Workshop**: Workshop on Adobe Photoshop. *Date*: 19-20/09/22. *Participants*: 60

51. Closing Ceremony – Marked the closing of ALTERDIME and was the valedictory function for the same. *Date*: 21/09/22. *Participants*: 25
52. **Initiative**: Ryan and Ria <Find IP Address>. *Date*: 25/09/22.

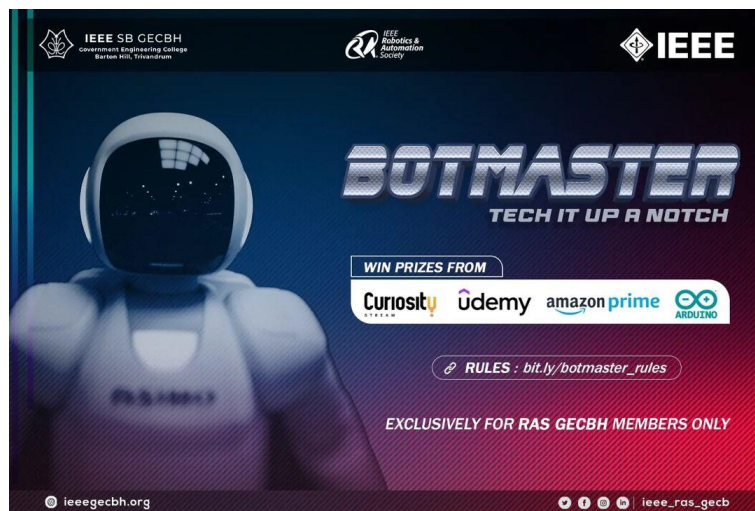53. **Initiative**: #include Tip 3.6 – The watch macro. *Date*: 25/06/22.
54. **Initiative**: INFOBYTES – DJI Avata. *Date*: 30/09/22.

IEEE RAS SBC GEC Barton Hill

1. **Webinar**: Introduction to Autonomous Mobile Robots and its Applications – A talk that threw light on the essential skills in Robotics. *Date*: 06/02/22. *Participants*: 40
2. **Initiative**: KNOWBOTS Edition 36 – RoboBee can now pivot on a dime. *Date*: 19/02/22.

3. **Contest**: Tech-It-Out – Just a minute competition on Integrated approach in science and technology for a better future with IEEE AP-S and IEEE MTT-S SBCs of GEC Barton Hill. *Date*: 08/03/22. *Participants*: 10
4. **Contest**: BOTMASTER – Launched year-long trivia quiz series conducted biweekly exclusively for IEEE RAS members of GECBH. *Date*: 20/03/22.

5. **Contest**: REBOOT – Arduino Day Quiz Competition. *Date*: 27/03/22. *Participants*: 40
6. **Initiative**: KNOWBOTS Edition 38 – The 11 commandments of hugging robots. *Date*: 02/03/22.
7. **Initiative**: KNOWBOTS Edition 39 – Physical sensations in VR go hands free. *Date*: 25/04/22.

8. **Session**: Robotics Community Meetup – Kerala Police Cyberdome Robotics Wing – an offline Session to improve and bring forth innovation from every nook. *Date*: 10/06/22. *Participants*: 40
9. **Initiative**: KNOWBOTS Edition 40 – Flea-sized robots walk a coin-edge-sized path. *Date*: 16/06/22.
10. **Initiative**: KNOWBOTS Edition 41 – Amazon Shows Off Impressive New Warehouse Robots. *Date*: 05/07/22.
11. **Initiative**: KNOWBOTS Edition 42 – Robotic rat climbs, crawls and turns on a dime. *Date*: 10/08/22.
12. **Initiative**: KNOWBOTS Edition 43 – Underwater robots get a boost in mapping the ocean, *Date*: 30/08/22.
13. CATALYST – A career orientation series with IEEE CS SBC GEC Barton Hill.
14. **Contest**: Placement Test and Mock Interview. *Date*: 06/09/22. *Participants*: 32
15. **Webinar**: Pursuing MS – All you need to know. *Date*: 06/09/22. *Participants*: 44
16. **Webinar**: Placements and Off Campus Opportunities. *Date*: 05/09/22. *Participants*: 12
17. **Contest**: COGNITIONIS 2.0 #6 - Quiz as part of COGNITIONIS 2.0 on the topic Mechatronics Systems and its Applications. *Date*: 19/09/22. *Participants*: 112
18. **Session**: Peer to peer mentorship training on Image Processing – covered sub-topics of Python, OpenCV and included a mini and main project. *Date*: 11/10/22 onwards (2 weeks). *Participants*: 10
19. **Initiative**: KNOWBOTS Edition 44 – Aerial Dragon Robot Recognises Itself Into a Flying Manipulator. *Date*: 10/10/22
20. **Workshop**: Drone Workshop – conducted in association with Underwater Drone Technologies Pvt.Ltd to cover the fundamentals of drones. *Date*: 05-06/11/22. *Participants*: 71
21. **Contest**: Android Kunjappan – an opportunity to showcase one's projects through tech-reels in a competition. Last *Date*: 21/12/22. *Participants*: 10

22. **Initiative**: KNOWBOTS Edition 45 – Robots learn human trick for not falling over. *Date*: 12/12/22.

IEEE AP-S and IEEE MTT-S SBCs GECBH

1. **Contest**: Tech-It-Out – Just a minute competition on Integrated approach in science and technology for a better future with IEEE RAS SBC of GEC Barton Hill. *Date*: 08/03/22. *Participants*: 10

2. **Webinar**: L4 Series Talk – RF Aspects of Magnetic Resonance Imaging by Dr. Robert H. Caverly with IEEE AP-S and IEEE MTT-S Kerala Chapters. *Date*: 25/03/22. *Participants*: 60
3. **Webinar**: L4 Series Talk – Decision Making and its Impacts with by Dr. B N Suresh with IEEE AP-S and IEEE MTT-S Kerala Chapters and IEEE AP-S and IEEE MTT-S SBCs of IIST. *Date*:13/05/22. *Participants*: 55
4. **IV**: CUSAT Visit. *Date*: 17/05/22. *Participants*: 52
5. **Contest**: Techstreak – a saga of 5 events exclusively conducted for IEEE AP-S and MTT-S members was launched. *Date*:11/07/22.

6. **Session**: IEEE Women In Microwave Colloquium – to learn and get inspired by several female engineers in the field of RF and Microwave with IEEE MTT-S Kerala Chapter. *Date*: 27/07/22. *Participants*: 40
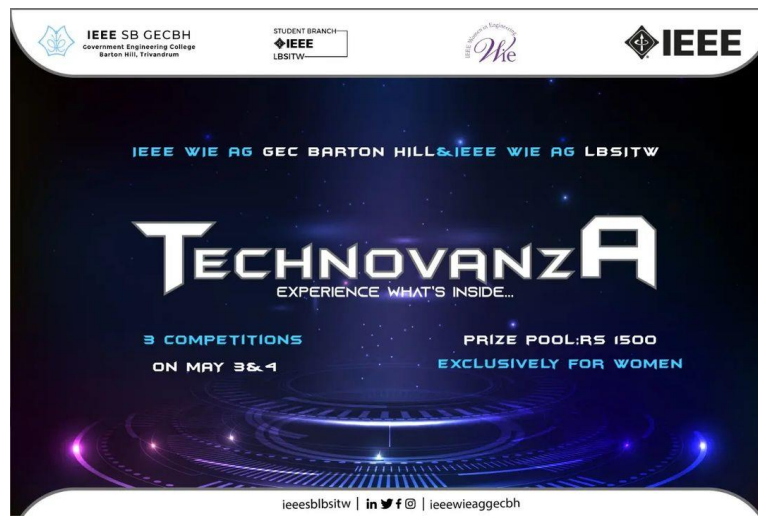

7. **Session**: Using technology for the benefit of humanity – opportunities ideas and challenges in collaboration with IEEE AP-S SIGHT and COPE, IEEE AP-S and IEEE MTT-S Kerala Chapter, WiE International Leadership Summit, and IEEE WiE Kerala Section. *Date*: 30/07/22. *Participants*: 20
8. **Session**: L4 Series Talk – An interactive **Session** with the legend on research, teaching and leadership by Prof. Debatosh Guha in collaboration with IEEE AP-S and MTT-S SBCs of IIST and IEEE AP-S and IEEE MTT-S Kerala Chapters. *Date*: 27/08/22. *Participants*: 60
9. **DLP**: A technical talk and interaction with IEEE Members by Prf. Debatosh Guha. *Date*: 24/09/22. *Participants*: 50
10. **DLP**: Distinguished Microwave Lecture by Dr, Shiban Koul. *Date*: 23/11/22. *Participants*: 25
11. **IV**: IPRC Mahendragiri. *Date*: 08/12/22. *Participants*: 42

IEEE WiE AG GEC Barton Hill

1. **Webinar**: Real Talk, A Candid Conversation on Opportunities - An informal talk session that focused on the speaker, Ms. Pheba Anna Philip, sharing her journey and enriching experiences of GHCI. *Date*: 01/03/2022. *Participants*: 41
2. **Contest**: Elaborer, An UI/UX Design Competition. *Date*: 05/03 - 10/03/22. *Participants*: 7

3. **Contest**: Technovanza - Series of three technical competitions in collaboration with IEEE WiE AG LBSITW

4. Nanoquiz - Quiz on Nanotechnology. *Date*: 03/05/22. *Participants*: 17
5. Rack Your Brain - Online aptitude test. *Date*: 03/05/22. *Participants*: 65
6. Runtime Terror - debugging competition. *Date*: 04/05/22. *Participants*: 1
7. **Contest**: Eminere - Placement oriented competition as part of WiECompete: WiE Week Celebrations 2022, in collaboration with WiE AG's of RSET, BJT and NIELET. *Date*:

26/05/2022 - 28/05/2022. **Participants**: 51

8. **Contest**: Expedition - A technical treasure hunt in collaboration with IEEE WiE AG MACE and GADS LLP. **Date**: 23/06/22. **Participants**: 103

9. **Contest**: COGNITIONIS 2.0 #4 – Quiz on the topic Blockchain Technology. **Date**: 19/06/22. **Participants**: 34

10. **Contest**: Nick Knack 2.0 - An aptitude test series based on CAT syllabus; 5 days, 15 questions each day. **Date**: 20/09/22 - 24/09/22. **Participants**: 110

EXORDIUM

- EXORDIUM 2.0 is the annual mega-flagship event of IEEE SB GEC Barton Hill, Trivandrum. With a staggering participation count of 110 IEEE members, the event was conducted offline this year at GEC Barton Hill, Trivandrum.
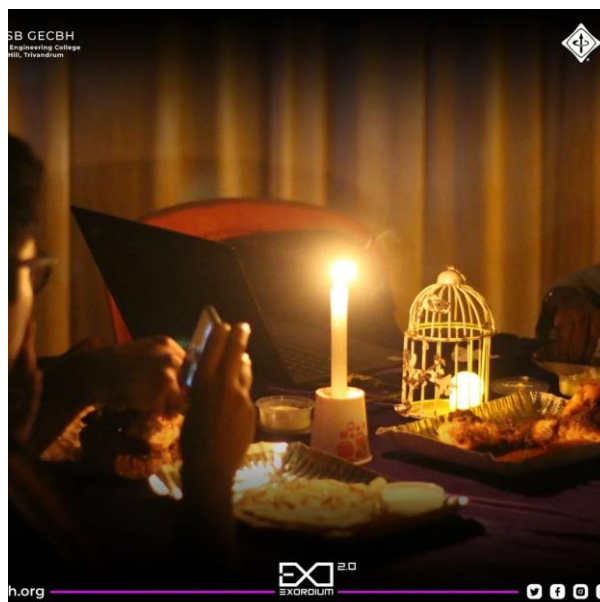

1. **Inaugural Ceremony** – With Mrs. Sarada Jayakrishnan as the Chief Guest, this also included the launch of Shristi, the new SIGHT Chapter. *Date*: 18/11/22. *Participants*: 110
2. **Networking Session** with YPs – to introduce the *Participants* into the various benefits offered by IEEE and familiarize with each other. *Date*: 18/12/22. *Participants*:110
3. **Culturals** – A unique performance by the College Band. *Date*: 18/12/22. *Participants*: 110
4. Build-a-thon – Offline Workshop based on project building with Arduino. *Date*: 19/12/22. *Participants*: 55
5. **AR-a-thon** – Offline Workshop based on project building with Unity. *Date*: 19/12/22. *Participants*: 55
6. **Sell Me the Code** – This **Contest** was an intriguing combination of coding and business. This was conducted by IEEE CS SBC GECBH. *Date*: 19/11/22. *Participants*: 110

7. **Breakout** – An exciting escape room in real life. This was conducted by IEEE RAS SBC GECBH. *Date*: 19/11/22. *Participants*: 110.

8. **Perspective** – the first round was a situation reaction test followed by the second round which was a word association test. This was conducted by IEEE WiE AG GECBH. *Date*: 19/11/22. *Participants*: 110.
9. **Feud Rebus** – A series of fun-filled games like in the TV show Feud Rebus. This was conducted by IEEE AP-S and IEEE MTT-S SBCs GECBH. *Date*: 19/11/22. *Participants*: 110
10. **Valedictory Ceremony** – This marked the closing of EXORDIUM 2.0 and several prizes were given away including those for EXORDIUM, COGNITIONIS 2.0 and the group activities of the SBCs. *Date*: 19/11/22. *Participants*: 110

11. **Candlelight Dinner** – The night ended with a beautiful candlelight dinner comprising all *Participants* and volunteers. *Date*: 19/11/22. *Participants*: 110
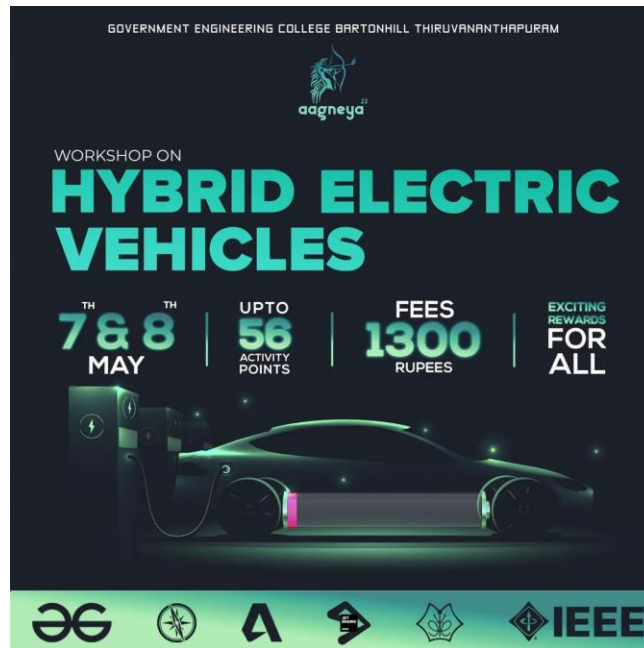
12. **IV** – An industrial visit was organized for all *Participants* to Kerala State Science and Technology Museum and Priyadarshini Planetarium. *Date*: 20/11/22. *Participants*: 110.

Aagneya '22

- Aagneya is the annual techno-cultural-managerial and entrepreneurial fest of GEC Barton Hill, Trivandrum. As part of the Technical-managerial and entrepreneurial fest of Aagneya '22 conducted at Sree Chithira Thirunnal Ground Poojappura, Trivandrum, IEEE SB GEC Barton Hill contributed in conducting 15 pre-events and 33 main-day events.

1. **Workshop**: Tech Camp-Workshop on Hybrid Electric Vehicles. *Date*:07-08/05/22. *Participants*: 352

2. **Contest**: Fast Fingers – a googling competition based on speed. *Date*: 13/05/22. *Participants*: 65
3. **Contest**: COGNITIONIS 2.0 #3 – Quiz on the topic Science and Technology. *Date*: 20/05/22. *Participants*: 112.
4. **Contest**: HATCH PITCH – a two-round entrepreneurial competition that included report submission and presentation rounds. *Date*: 28/05/22 and 03/06/22. *Participants*: 20
5. **Contest**: EMERGE – a **Contest** to express innovative ideas on start-ups sponsored by Ed Gaadi. *Date*: 04/06/22. *Participants* - 15
6. **Contest**: BLACKOUT – a blind coding competition. *Date*: 04/06/22. *Participants*: 20

7. **Contest**: INAPP BEST ENGINEER – a simulation of the actual placement drive with three rounds. *Date*: 28 and 30/05/22 and 04/06/22. *Participants*: 30
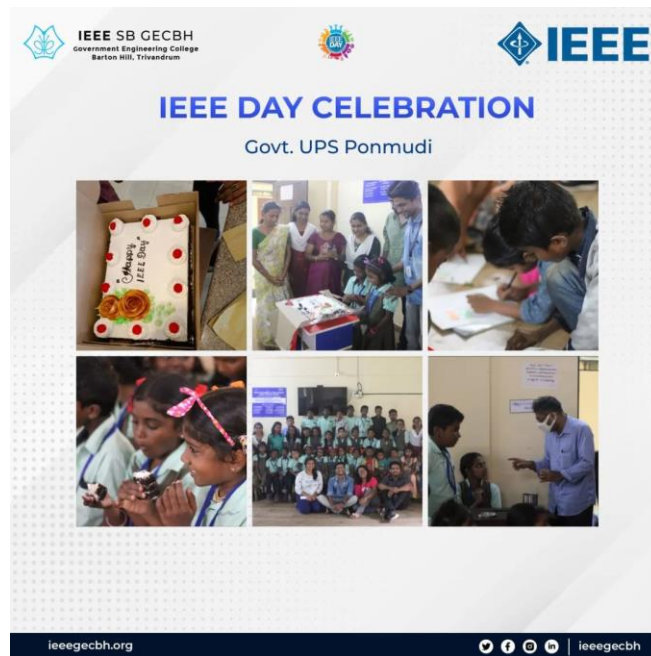

8. **Contest**: HACKWARE – Arduino based IOT Challenge. *Date*: 04/06/2022. *Participants*: 15
9. **Contest**: LABYRINTH – a robo race through the maze. *Date*: 04/06/22. *Participants*: 10
10. **Contest:** Vyuh 10.0 – an online treasure hunt. *Date*: 27/05/22. *Participants*:

Other Events

1. **Administrative**: Execom Training – Conducted by Dr. Mini Ulanat. *Date*: 29/06/22. *Participants*: 64

2. **Contest**: WEBCIPHER 2.0 – A front-end website debugging competition. *Date*: 07-09/07/22. *Participants*: 22
3. **Contest**: BEST ENGINEER 7.0 – 2 rounds of the 7th edition which group discussion and HR interview. *Date*: 26/07/22 and 21/09/22. *Participants*: 10+
4. **Contest**: BEST ENGINEER 8.0 – 3rounds of the 8th edition comprising aptitude test, group discussion and HR interview. *Date*: 31/10/22 – 09/11/22. *Participants*: 350
5. **IEEE Day Celebration** – conducted at Government UPS, Ponmudi. *Date*:07/10/22. *Participants*: 25

6. **Contest**: KICK OFF 3.0 – Organized for the first-year students of GECBH comprising 5 rounds of 5 tasks. *Date*: 03/11/22 onwards. *Participants*: 62
7. **Contest**: Reminiscence – an opportunity to share experience with IEEE. Last *Date*: 19/10/22. *Participants*: 16