



DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

PRESENTS



MAGAZINE

2018-19 EDITION



INSTITUTE OF ENGINEERING AND TECHNOLOGY

VISION

To produce manpower in the field of Electronics and Communication Engineering, capable to compete with that elsewhere and to make the department a center of excellence in the field of Signal Processing and Microelectronics.

MISSION

- M1:** To develop the ability among students and understand concepts of core graduate electronics and communication engineering.
- M2:** To create center of Excellence to meet global research and development challenges
- M3:** To build student community with professional and ethical standards in thrust areas so as to meet industry requirements.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1:** Graduates of the programme will have an educational experience that inspires them to exhibit leadership and team building skills and have successful careers in their chosen technical or professional domain.
- PEO2:** Graduates of the programme will continue to learn and adapt in a constantly evolving society and contribute to the society in a professional and ethical manner.
- PEO3:** Graduates of the programme will inculcate good technical and professional knowledge according to requirements of industries and higher studies.
- PEO4:** To inculcate the spirit of innovation / creativity, independent thinking, risk taking ability, entrepreneurship and attitude to approach challenges with confidence.

PROGRAM SPECIFIC OBJECTIVES (PSOs)

- PSO1:** An ability to understand the concepts of basic Electronics & Communication Engineering and to apply them to various areas like Signal processing, VLSI, Embedded systems, Communication Systems, Digital & Analog Devices, etc.
- PSO2:** An ability to solve complex Electronics and Communication Engineering problems, using latest hardware and software tools, along with analytical skills to arrive cost effective and appropriate solutions.
- PSO3:** **Wisdom** of social and environmental awareness along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an Entrepreneur.



COORDINATORS' VIEWS



Being an electronics & robotics enthusiast, it gives me immense pleasure to present to you this magazine which is a compilation of efforts of members of the club. This club very capably provides students to visualize beyond their curriculum and dive into world of interdisciplinary sciences. Various students from all the branches of Institute contribute to various club activities and this necessary blend is the soul strength of this club. Being part of this club is in itself a responsibility and to contribute to its betterment has always been the goal. I'm very glad to see that our hard work is also reflected in our results and I being the coordinator take proud in achievements of its members. There has been a high number of participation of club members in various competitions and we were able to mark our presence in every competition we took part in. Support of faculty mentors has been tremendous and all this won't have been possible because of ample amount of positive response from their side. We, as a fraternity, promise to continue this journey of learning with the belief that this expedition will add value to different part of our life and society.

-LEKHRAJ SINGH, ECE 3RD YEAR

The Robotics Club was established with a goal to bridge the gap between the curriculum and practical out of the box thinking. The club carried its legacy of imparting the knowledge of robotics, automation, embedded system and other enthralling fields. Having such a club was always a dream which can provide a platform for like-minded tech-enthusiasts to come up and work together, and being the part of such club and discharging my responsibilities as the coordinator of the club was a great opportunity mainly because of lifting our spirits high and more so because I always wanted to do something for the upcoming juniors. Always wished to provide them a platform open for discussions, workshops and contests that'd go a long way in shaping their lives. This is one of the few registered clubs at the institute and has seen exponential growth since its official inception. The club foresees a long road and will build up on its ethos in the upcoming sessions.



-HARSH JAIN, ECE 3RD YEAR



ABOUT US

It is very rightly said, "Engineering at its heart is about utilizing science to find creative practical solutions. It's indeed a noble profession. Learning new technologies and being able to experience the joy of designing something on your own gives one an edge over others. After all, design is not how it looks like and feels like, design is how it works!

With the fields of automation, artificial intelligence, mechatronics, advanced circuitry among several others growing enormously and drawing the interest of a large section of students, it was the need of the hour to establish technical clubs such as that of robotics for the betterment of young brains as well as enhancing the overall college reputation. The Robotics Club was established in 2017 with a total of 6 faculty advisors, 6 mentors from final year, 17 third year students and 25 second year students, conducting robotics workshops imparting technical knowledge, nurturing raw minds, enabling students to hone their skills, expanding horizons, reaching for the sky!



VISION

To inspire and enable students to explore their creativity and engineering skills through robotics; in a fun and competitive atmosphere that teaches them both technical skills, teamwork and leadership. To promote learning of new technologies amongst the students and to enable them to experience the joy of designing something on their own.

MISSION

To inspire young people to be the leaders in robotics, by engaging them in exciting, mentor-based programs that build engineering skills, inspire innovation, and foster well-rounded life capabilities including self confidence, communication and leadership.



ADVISING COMMITTEE



FACULTY ADVISORS

- DR. RAJIV KUMAR SINGH- ASSISTANT PROFESSOR (ECE DEPT.)
DR. RAM CHANDRA SINGH CHAUHAN- ASSOCIATE
PROFESSOR (ECE DEPT.)
DR. SEETHALAKSHMI - ASSOCIATE PROFESSOR (EE DEPT.)
MRS. PARUL YADAV - ASSISTANT PROFESSOR (CSE DEPT.)
DR. UPENDRA KUMAR - ASSISTANT PROFESSOR (CSE DEPT.)

MENTORS (BATCH 2015-2019)

- | | |
|------------------|----------------|
| ASHEESH RAIKWAR | FINAL YEAR ECE |
| ASHUTOSH DWIVEDI | FINAL YEAR ECE |
| DEEPAK SHARMA | FINAL YEAR ECE |
| VIKAS SWAROOP | FINAL YEAR ECE |
| ANKUR SINGH | FINAL YEAR ECE |
| SHRETIKA JAIN | FINAL YEAR ECE |
| PALAK AGARWAL | FINAL YEAR ECE |
| CHANDAN JAISWAL | FINAL YEAR ECE |



WORKING COMMITTEE



CO-ORDINATORS:

HARSH JAIN (EC 3rd YEAR)

LEKHRAJ SINGH (EC 3rd YEAR)

SECRETARY: YADUVEER SINGH (EE 3rd YEAR)

TREASURER: JYOTSNA SHARMA (EC 3rd YEAR)

3RD YEAR MEMBERS:

ABHISHEK KUMAR (EC)

ADITYA VERMA (EC)

AMIT KR. PRAJAPATI (EI)

ANANYA JAISWAL (EI)

HARSHDEEP SINGH (EC)

KINJAL JAIN (CSE)

NISHANT KUMAR (EE)

PRANAV SRIVASTAVA (EC)

RAM MAHESH (EC)

SHIKHAR SHUKLA (EC)

SHREYA GUPTA (EI)

SHRUTI JOSHI (EC)

2ND YEAR MEMBERS:

ANIRUDH AGARWAL (CSE)

ANKITA GUPTA (EI)

ASHISH KORI (EI)

HARISH DOHAN (EI)

HARSIMAR KAUR (EI)

KANISHK SINGHAL (CSE)

KOUSTUBH JAISWAL (EE)

KSHITIJ JAISWAL (EE)

KUMAR GAURAV SAHU
(EE)

KUSHAGRA SHUKLA (CSE)

LOKENDRA (EE)

PRAKASH RATHORE (EI)

PUSHPENDRA SINGH (EE)

RICHA SHARMA (EI)

RISHABH KUMAR (ME)

SAJAL JAIN (EC)

SATYAM SINGH (EC)

SHRIKRISHAN BAGHEL (EC)

SHUBAHM JAISWAL (EC)

SHUBHAM SAINI (CHE)

SHUBHAM SINGH (EC)

SHUBHAM GUPTA (EC)

VAISHNAVI PAL (EE)

VIKAS (EC)

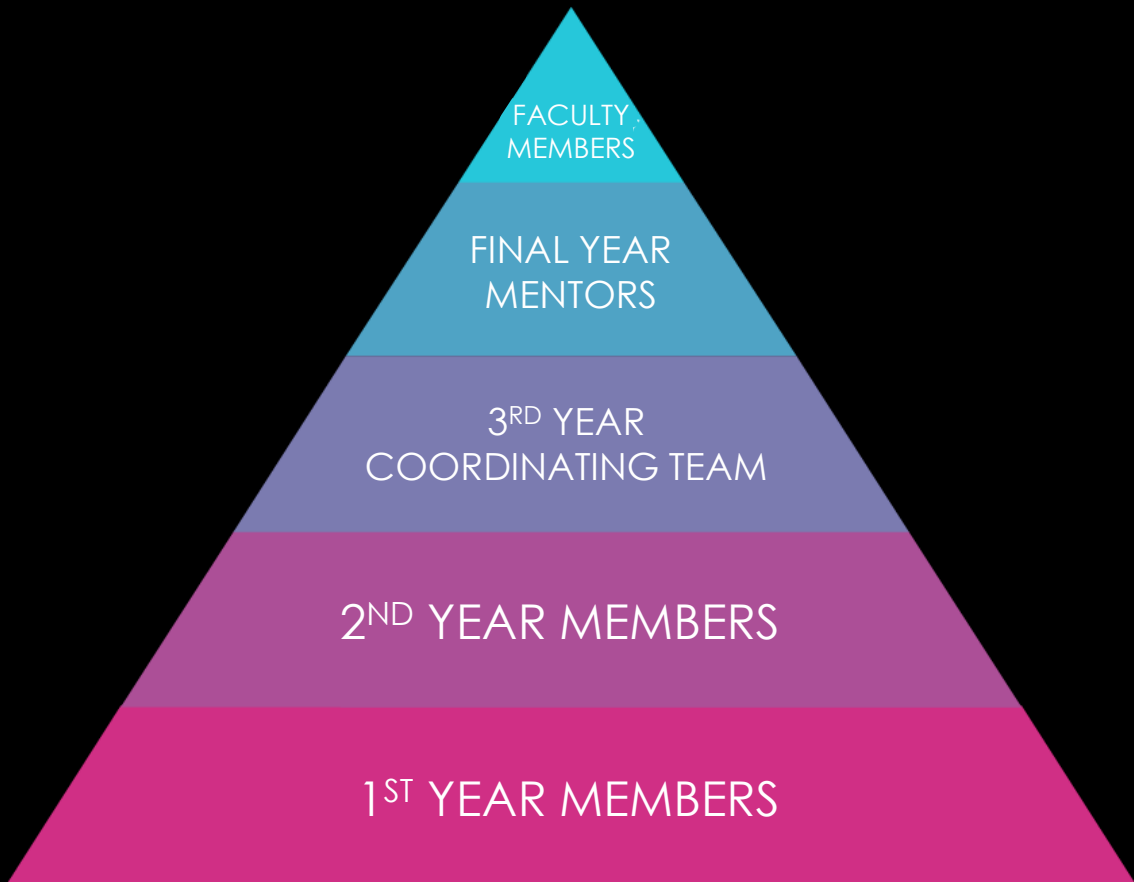
YOGESH YADAV (EE)

*INCLUDING 39

STUDENTS FROM 1ST
YEAR FROM DIFFERENT
BRANCHES



HIERARCHICAL STRUCTURE

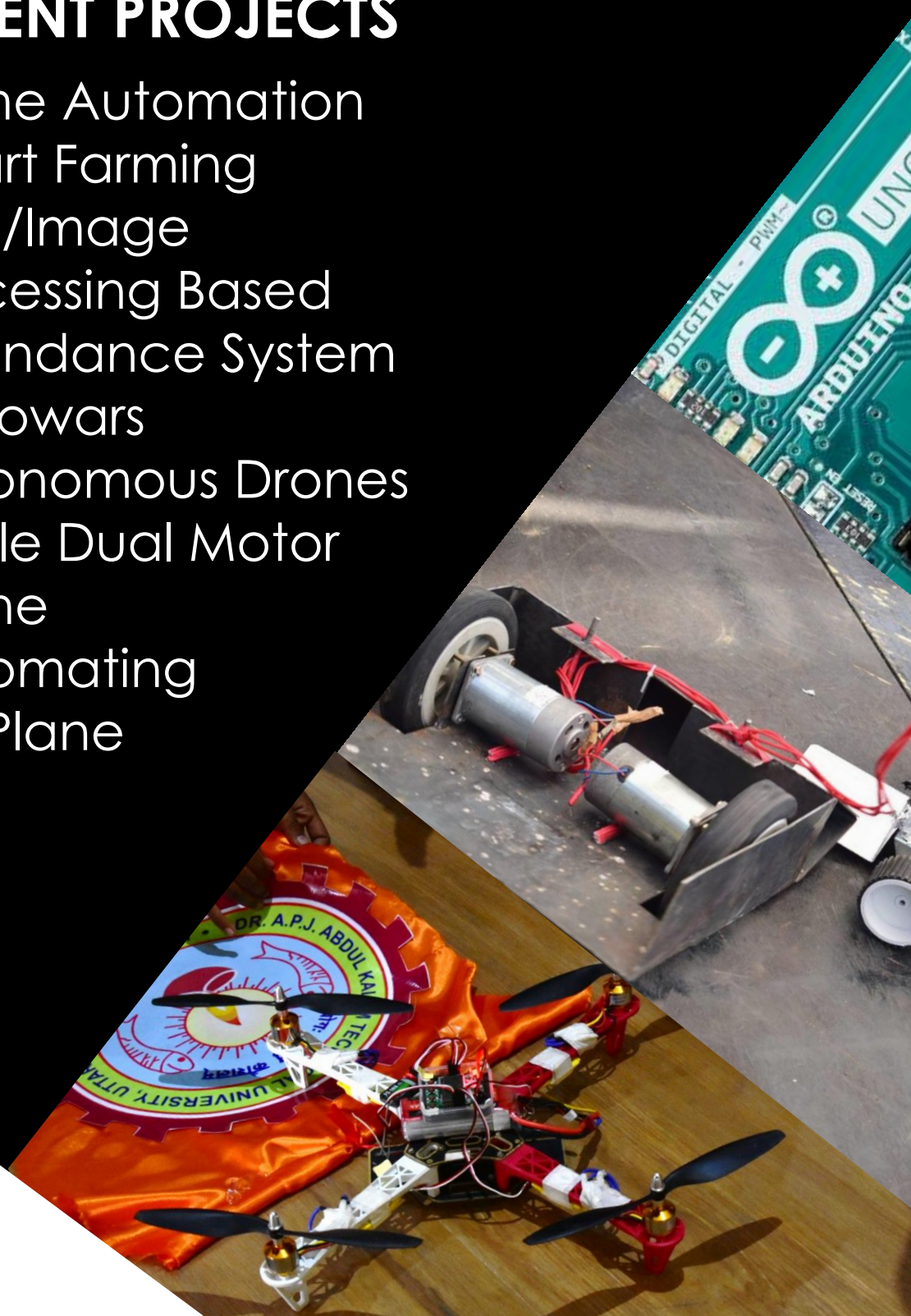




WORKING CULTURE

CURRENT PROJECTS

- Home Automation
- Smart Farming
- RFID/Image Processing Based Attendance System
- Robowars
- Autonomous Drones
- Single Dual Motor Drone
- Automating RC Plane





COMPLETED PROJECTS

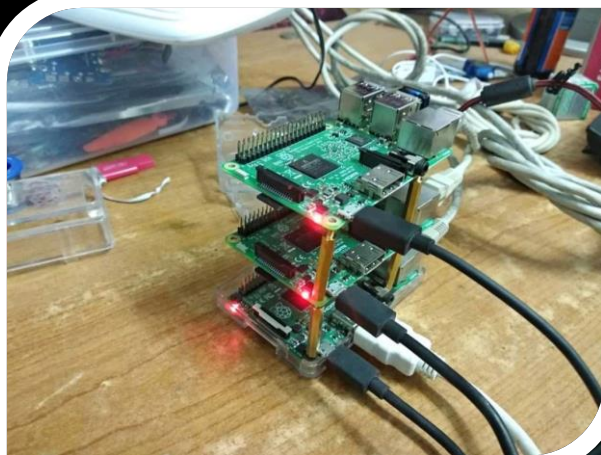


Two Drones. One enabled with auto-stabilisation mode using Pixhawk flight controller and other is Pluto X Nano Drone for indoor environment

Raspberry Pi based bot for image processing and facial recognition and identification features



Raspberry Pi cluster based parallel processing technique similar to functionality used in supercomputer





ACHIEVEMENTS

E-Yantra:

This time total 20 teams under 5 themes from our college participated in E-yantra out of which 7 teams qualified for the 2nd round and further 2 of them became the finalists.

Finalists of EYRC 2019:

Theme : **Hungry Bird**

Team Leader: Shruti Joshi – ECE 3RD

Theme : **Mocking Bot**

Team Leader: Shreya Gupta – EI 3RD

Smart India Hackathon:

This year students of ECE third year of our college backed first position in the Software Edition.

Team Leader: Harsh Jain- ECE 3RD

Techkriti:

The participation in Techkriti has significantly improved.

4 teams from second year and 12 teams from first year participated in Techkriti 2k19. Out of which many cleared the first stages in their respective competitions.

Team: Error 404

Team leader: Koustubh Jaiswal: EE 2nd

Team: DHANUSH

Team Leader : Shrikrishan Baghel
:ECE-2nd

Robowars:

IIT Patna – 1st position in 10kg category combat

IIT BHU - 1st position in 60kg category

Meerut Institute of Engineering and Technology - 3rd position in 30kg category.





CLASSES AND WORKSHOPS

TOPICS COVERED:

- Arduino
- Autonomous Robotics
- Manual Robotics
- Aeromodelling





FUTURE ENDEAVOURS



The club foresees to unleash itself into a whole new aura of technovaganza and automation. Starting from scratch, from the very basic autonomous LFRs to the application of large scale ICs for RC planes, from the blueprint of autonomous drones to the diatonic single dual motor drones, we've taken to projects like smart farming and home automation. The club, under the aegis of the SEED society and the department undertakes to widen its outreach on the global platform and also establish a marked presence on the national circuitry dedicated to the area of automation and mechatronics.

COMPETITONS AIMED FOR:

- **University Rover challenge**
- **Robocon ABU**
- **World Robotics Olympiad**
- **E-Yantra**

Reserve Bank of Instruments

This is a proposed project of this club, where seniors can lend robot parts and electronic devices for certain days to their juniors who can use them for learning as well as experimentation purposes. Thus, making learning much cost efficient.





DESIGNING TEAM



GRAPHIC DESIGN:

DIVYANSH TRIPATHI - ChE 1ST YEAR

ANANT AGARWAL- EC 1ST YEAR

RISHABH BALAIWAR- CSE 1ST YEAR

JUHI SINGH- ME 1ST YEAR

CONTENT WRITING:

GAUTAM MISHRA- EI 1ST YEAR

AMISH MANGLA- EC 1ST YEAR

SHRUTI ASTHANA- EC 1ST YEAR

ANCHAL MALLICK- EI 1ST YEAR



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