



MIND
Spark
ISSUE - V

INSTRUMENTATION & CONTROL DEPARTMENT

JULY '21 TO DECEMBER '21

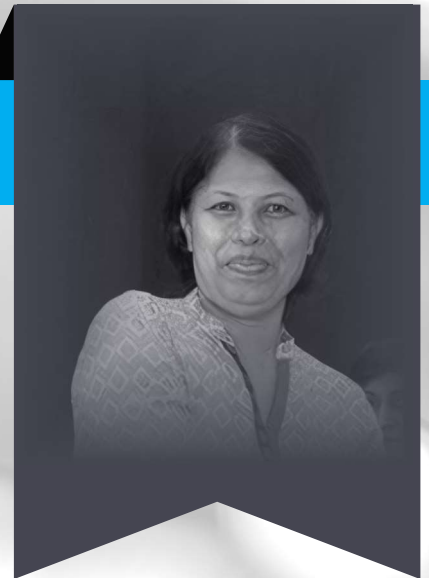
Dr. Sweta P. Dave | Principal, G.E.C. Gandhinagar.

"A desire can change nothing, a decision can change something but a determination can change everything".

It gives me immense pleasure to present my views and thoughts through the MindSpark newsletter of the Instrumentation & Control Department.

The evolution of the institute over the past has witnessed strong blend of state-of-the-art infrastructure and intricately intertwined human resource committed to provide professional education with thrust on creativity and innovation. The motivating environment in GEC-Gandhinagar for knowledge assimilation, generation and dissemination with a sense of social responsibility, human values and concern for social commitment has carved a niche for itself among the best technical institutes.

Faculties of GEC-Gandhinagar, have always given their best in nurturing students for their holistic growth. My Heartfelt Congratulations to the IC Department for publishing MindSpark, semi-annual Newsletter. I hope and wish that this Newsletter gives a unique platform to students and faculties to share their ideas and achievements.

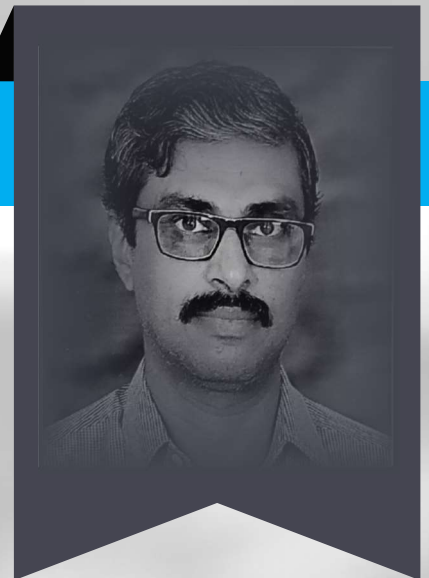


Prof. Manish R. Jani | Asso. Prof., HOD, I & C, G.E.C. Gandhinagar.

A warm and Green Greetings from the Department of INSTRUMENTATION AND CONTROL ENGINEERING at GEC-Gandhinagar. The college has been simply unstoppable in its progress despite of this pandemic situation online and offline modes ; as it has been actively involved in various activities that have brought to light the hidden talents of the college students and staff.

Our students are not only academically sound and disciplined but they also organize and participate in various co-curricular events at institute and university level. This Newsletter has provided a platform to share all the activities done in the department for the said tenure. It also gives an opportunity for faculties and students to share their ideas and thoughts among others.

Congratulations on well-deserved success of the students, faculties and all the stake holders of the Instrumentation & Control Department for the publication of the fifth issue of the Departmental Newsletter, MindSpark. In addition I congratulate all the IC family members for the Newsletter and wish all the bright future ahead.





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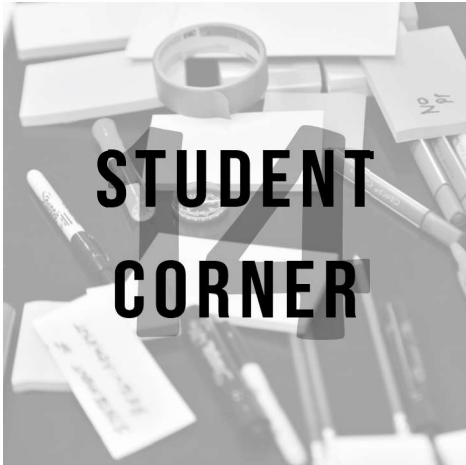
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ABOUT THE

INSTITUTION

Government Engineering College, Gandhinagar is approved by AICTE, administrated by Directorate of Technical Education, Gujarat State and it is affiliated to Gujarat Technological University.

Since its establishment in 2004, the college is committed to give best education to its students in a manner that they not only excel in academics but are completely aware of future industrial needs for professional expertise through innovative and flexible curriculum.

This trains the students of this campus to reach their highest potential. The highly dedicated faculty members of GEC-Gn are experts in their professional fields.

Their professional skills and industry linkages help the students by grooming them to become competent engineers who will contribute to the society and economy in the long run.

VISION

To be a premier engineering institution, imparting quality education for innovative solutions relevant to society and environment.

To develop human potential to its fullest extent so that intellectual and innovative engineers can emerge in a wide range of professions.

To advance knowledge and educate students in engineering and other areas of scholarship that will best serve the nation and the world in future.

To produce quality engineers, entrepreneurs and leaders to meet the present and future needs of society as well as environment.

MISSION

ABOUT THE

DEPARTMENT

The Department of Instrumentation and Control Engineering offers B.E. programme at the Under Graduate level since year 2004. Presently department offers undergraduate course B.E.(Instrumentation & Control), recognized by AICTE (All India Council for Technical Education).

Instrumentation and Control engineering is the science of the measurement that includes study of sensors and transducers to measure and control crucial process variables like pressure, temperature, humidity, flow etc. Automation controllers as PLC, DCS and advance embedded controller are also the part of study to implement control algorithm for automation application. The department is equipped with well-developed laboratories to satisfy the course curriculum and the laboratories are planned to fill in the industry institute gap.

We aim to produce talented instrumentation and control specialists who cater to meet the technological challenges of industries and society with environmental consideration.

VISION

To impart quality education in Instrumentation & Control engineering through innovation to meet technological challenges of industries and society with environmental consideration.

MISSION

- To impart knowledge about present trends in the field of Instrumentation & Control engineering.
- To train competent Instrumentation & Control engineers who can design, operate process instrumentation and also manufacturing an automation systems in industries.
- To encourage students to work on innovative research projects related to Instrumentation & Control engineering considering environmental aspect.

PEO's

- PEO-I To operate and maintain industrial Instrumentation & Control system.
- PEO-II To design Industrial Instrumentation & Control system by innovative approach.
- PEO-III To inculcate professional and ethical attitude, effective communication skills, multidisciplinary approach and an ability to relate Engineering issues in social and environmental context.
- PEO-IV To acquire the ability for life-long learning needed for a successful Professional career.

PSO's

- PSO1 Design and develop solutions for process control and automation industries and able to pursue career in research, industry, higher studies and adapt to changing technology.
- PSO2 Able to understand professional and ethical responsibility with effective communication skills and life-long learning.

FACULTIES

Prof. Manish R. Jani



Associate Professor
(Head of the Department)
M.E. / MTech. Qualified
26.5 Years of Teaching
Experience

Dr. S.A. Rankawat



Associate Professor
PHD Qualified
26.5 Years of Teaching
Experience

Dr. D. H Shah



Associate Professor
PHD Qualified
22.5 Years of Teaching
Experience

TEACHING STAFF DETAILS

Prof. A. D. Rathod



Associate Professor
ME (IC) Qualified
21.5 Years of Teaching
Experience

Prof. M. B. Hingu



Assistant Professor
M.Tech., SYSCON - IITB Qualified
24.5 Years of Teaching &
01 Year Industry Experience

Prof. I. U. Ajmeri



Assistant Professor
ME (IC) Qualified
23.5 Years of Teaching
Experience

FACULTIES

Prof. K. C. Dave



Assistant Professor
M.Tech (E And Tc) Qualified
12.5 Years of Teaching
Experience

Prof. K. K. Acharya



Assistant Professor
ME (IC) Qualified
21.5 Years of Teaching &
02 Year Industry Experience

Dr. K. B. Pathak



Assistant Professor
PHD Qualified
17.5 Years of Teaching
Experience

TEACHING STAFF DETAILS

Prof. K. S. Vashishtha



Assistant Professor
ME (IC) Qualified
11.5 Years of Teaching
Experience

Prof. N. V. Patel



Assistant Professor
ME (IC) Qualified
10.5 Years of Teaching &
05 Year Industry Experience

Prof. P. N. Patel



Assistant Professor
ME (IC) Qualified
07.5 Years of Teaching
Experience

FACULTIES

Prof. R. S. Rana



Assistant Professor
M.Tech (IC) Qualified
05.5 Years of Teaching
Experience

Prof. R. L. Zadfiya



Assistant Professor
M.Tech (IC) Qualified
11.5 Years of Teaching
Experience

Prof. A. N. Bokade



Assistant Professor
ME (IC) Qualified
16.5 Years of Teaching
Experience

TEACHING STAFF DETAILS

Prof. J. J. Shah



Assistant Professor
ME (IC) Qualified
05.5 Years of Teaching
Experience

Prof. C. B. Panchal



Assistant Professor (Contractual)
ME (IC) Qualified
05.5 Years of Teaching &
05 Years Industry Experience

NON - TEACHING STAFF

Miss N. J. Makwana



Lab Assistant
BE (IC) Qualified
06.5 Years of Experience

RESOURCES

Embedded System Laboratory



Process Control Laboratory - II



Computer Centre I & 2



The Department has Spacious and Ventilated Classrooms and state of the Art Laboratories with Research Lab Facility, all that makes an excellent Infrastructure.

Analog Electronics Laboratory



Communication Laboratory



Measurement & Process Control Laboratory



PLACEMENTS

TRAINING & PLACEMENT CELL, IC DEPARTMENT

The Training and Placement cell continuously explores different areas of opportunities for placement. The Department's T&P team maintains liaison with industries for various training programs for students as per the need of industries as well as for final placement of students. Due to strong liaisoning with industries, our students are placed at many well-known companies.

Some of the major recruiters are:

- ✓ Adaptive Engineering Private Ltd., Ahmedabad, Gujarat
- ✓ Tatvasoft, Ahmedabad, Gujarat
- ✓ Eurotech Power Controls
- ✓ Vodafone India Ltd
- ✓ Axis Solutions Pvt. Ltd., Kathwada, Ahmedabad
- ✓ Gujarat Alkalies And Chemical Limited, Dahej, Bharuch
- ✓ Zydus Cadilla, Bharuch
- ✓ Multispan Control Instruments Pvt. Ltd., Ahmedabad
- ✓ Biolitec India Pvt. Ltd., Baroda
- ✓ Zydus Healthcare Ltd., Ahmedabad
- ✓ Cadila Healthcare Ltd
- ✓ Atul Ltd., Ahmedabad



- ✕ **Reliance Industries Limited** has selected following 4 Instrumentation & Control Engineering final year students for the position of “GRADUATE ENGINEERING TRAINEE”.

- ✧ Jigar Rajeshkumar Bhatt.
- ✧ Charmi Amit Mehta.
- ✧ Neha Bikashlal Shaw.
- ✧ Keval Pratap Sutar.

- ✕ **TATA Consultancy Services Limited (TCSL)** has selected “Hemil Shah” for the position of Assistant System Engineer-Trainee.

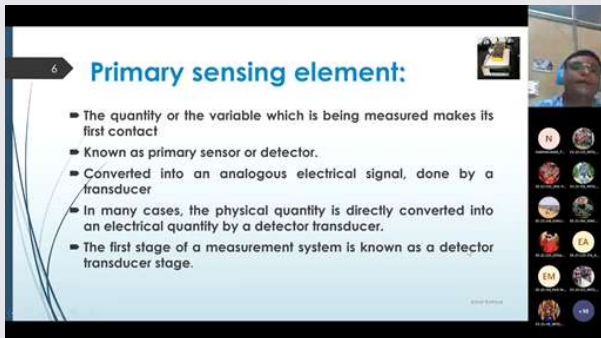
- ✕ **Students have been offered internships at various companies like...**

- ✧ Masibus Automation and Instrumentation Pvt Ltd, Gandhinagar.
- ✧ Rutav Engitronic Systems, Gandhinagar (Paid).
- ✧ Eleics Design Private Limited, Gandhinagar (Paid).
- ✧ RECOTECHNOLOGIES, Gandhinagar.
- ✧ Multispan Control Instruments Pvt Ltd, Ahmedabad.
- ✧ Amtech Electronics India Limited, Gandhinagar.

FACULTY MANEUVER

Prof. A. D. Rathod

Prof. A. D. Rathod, Associate Professor, IC Department, had conducted an online expert lecture on "Industrial Instrumentation" on date: 27-10-2021, at Electrical Engineering Department, R. C. Technical Institute, Sola, Ahmedabad.



Prof. M. B. Hingu

Prof. M. B. Hingu has participated in FDP-12 week online NPTEL MOOC course on "Introduction to Industry 4.0 and Industrial Internet of Things-Prof.Sudip Misra, IIT KHARAGPUR from 26th JULY 2021 TO 15th OCT 2021 and successfully cleared the Course examination conducted by NPTEL team.

Paper Publication Details

Prof. Aarti N. Bokade

Prof. Aarti N. Bokade, Assistant Professor, IC Department, has published a paper on "Breast Mass Classification with Deep Transfer Feature Extractor Model and Random Forest Classifier", Publisher:IEEE, Published in: 2021 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT).

Prof.(Dr.) Deepali H. Shah

Prof.(Dr.) Deepali H. Shah, Associate Professor, IC Department, has published a paper on "Visualization & Interpretation of CNN layers for prediction in Dental Cavity Classification" in Stochastic Modelling & Applications, Vol-25, No-3(July-Dec, special issue 2021, Part-3), UGC Care Approved Journal.

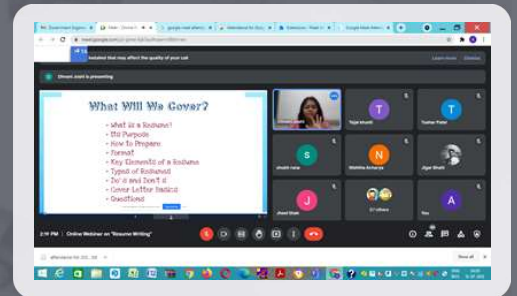
Prof.(Dr.) Deepali H. Shah

Prof.(Dr.) Deepali H. Shah, Associate Professor, IC Department, has published a paper on "Traditional & State-of-the-art Edge Detectors" in Stochastic Modelling & Applications, Vol-25, No-3(July-Dec, special issue 2021, Part-3), UGC Care Approved Journal.

DEPARTMENTAL ACTIVITIES

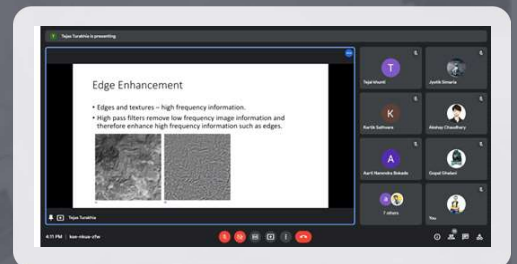
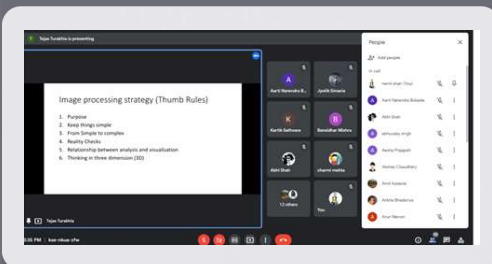
Webinar on “Resume Writing”

To familiarize the final and pre-final year students with the format and content to be written in a resume, the Instrumentation & Control department had organised a webinar on “Resume Writing” on 31st July 2021. Prof. Dhavani Pandya from St. Kabir Institute of Professional Studies, Ahmedabad, had conducted the session.



Webinar on “Image Processing for Satellite Image Analysis”

A webinar on “Image Processing for Satellite Image Analysis”, was organised by IC Department for Final year students, on 2nd August 2021. Mr. Tejas turakhia, Researcher from ISRO, Ahmedabad, was invited to share his knowledge.



Webinar on “Microcontroller & Robotics Embedded System”

A webinar on “Microcontroller & Robotics Embedded System” was organised by I.C. department on 17th July, 2021. Experts from Prolific systems & Technologies Pvt. Ltd., had conducted the session and more than 60 students and 15 faculties had taken advantage of the same.



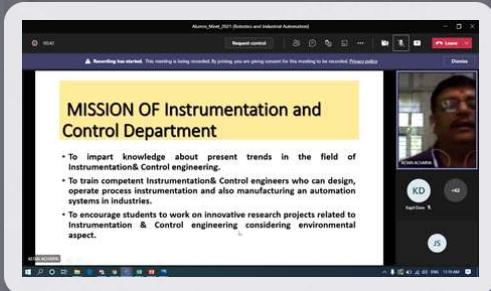
Alumni Meet on “Robotics and Industrial Automation”

Alumni meet was organized by Instrumentation & Control department on 11th October 2021. Mr. Nihar Savaliya (Alumni student-IC), working as Junior Programmer (PLC and HMI), RBT Electrical and Automation, Brantford ON, Canada, had conducted the session. He shared his knowledge on “Robotics and Industrial Automation” topic.



DEPARTMENTAL ACTIVITIES

Online Event for Dissemination of “Vision”, “Mission”, “PSOs” & “PEOs”



An online event for Dissemination of Vision, Mission, PSOs, PEOs of the department and Vision & Mission of institute, was organized at IC Department, on 11th October 2021. Prof. Ketan K. Acharya had conducted the session. Many important points were discussed among stakeholders and the session was very fruitful. More than 150 participants were present in the meeting.

Teachers' Day Celebration

Teachers' day was celebrated by the NSS unit of the Institute at Instrumentation & Control Engineering Department on 6th September 2021. Principal madam, Dr. Sweta P. Dave was the chief guest of the program and Prof. N.D. Patel from NSS unit along with other faculties also joined as guests.

Ritesh Patle, 5th semester student of IC, shared his views by a presentation on Dr. Sarvepalli Radhakrishnan and elaborated the importance of celebrating teacher's day.

Some of the students had beautifully written poems related to importance of teachers in life and presented the same in front of everyone. The program came to an end with a dance performance prepared by 3rd semester students of IC Department.

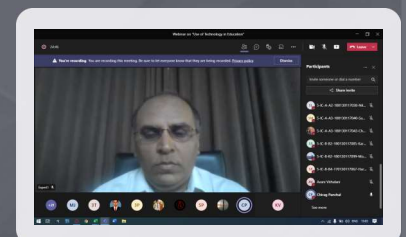


Webinar on “Use of Technology In Education”



On completion of one year of transformative reforms under National Education Policy (NEP)-2020, Instrumentation & Control Engineering Department, on behalf of Government Engineering College Gandhinagar had organized a webinar on “Use of Technology in education”, on 10th August 2021.

Mr. Vipul Rajdev, Founder, Satvasys Solutions, Ahmedabad was invited to deliver this webinar. Many faculties and students of Government Engineering College, participated in this event.

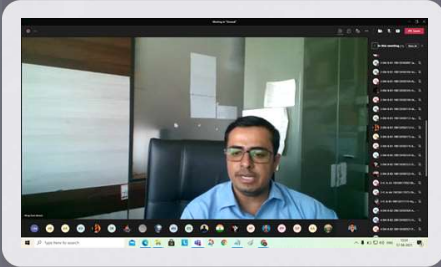


DEPARTMENTAL ACTIVITIES

Webinar on “My India My Pride : Mystic Masters' Messages on Personality Development”

On completion of one year of transformative reforms under National Education Policy (NEP)-2020, Instrumentation & Control Engineering Department, on behalf of Government Engineering College Gandhinagar had organized a webinar on “My India My Pride : Mystic Masters' Messages on Personality Development” on 17th August, 2021.

Mr. Nirag Dave, Assistant Registrar, Kamdhenu University, Gandhinagar was invited to deliver this webinar. Many faculties and students of Government Engineering College, participated in this event.



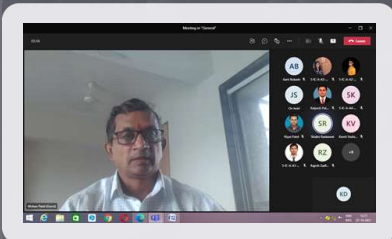
Webinar on “Control Design with MATLAB and Simulink”

A webinar on “Control Design with MATLAB and Simulink” was organized by IC Department on 23rd September 2021. This session focused on how to easily tune simpler, single-input single-output PID controllers, as well as more complex arbitrary multivariable controllers. More than 100 students along with faculties had participated in the event.



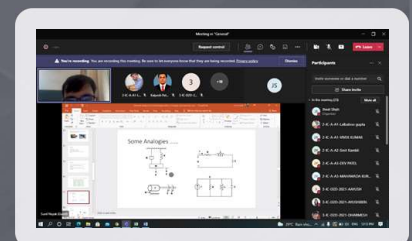
Webinar on “Automation in Food Processing”

A Webinar on “Automation in Food Processing” was organized on 7th October 2021 for students of final and prefinal year. Prof. Mohan N.Patel, P.P Savani University, Assistant Professor had conducted the session.



Webinar on "Network Analysis In Practical Applications"

A webinar on "Network analysis in practical applications" was conducted by IC Department on 18th September 2021. Prof. Sunil D. Nayak, Assistant Professor, SAL College of Engineering, Ahmedabad had conducted the session. Students of 3rd semester were present in the session where, starting from the basic laws of network theories to various network simulation were covered.



DEPARTMENTAL ACTIVITIES

Webinar on “Digital Electronics And Its Application”



A webinar on “Digital Electronics and its application” was conducted by IC department on 12th October 2021. Miss Urja J. Shah, Lecturer, Govt. Polytechnic, Ahmedabad had conducted the session for semester 3 students.

Webinar on “Campus To Corporate - Be Ready For Transformational Journey”

A webinar on “Campus to Corporate-Be ready for transformational journey” was conducted by IC Department on 8th October 2021. Prof. Hiren Mandalia (Motivational speaker, GP Jamnagar) had conducted the session for the students and shared his views on some of the topics like career motivation, how to secure space in corporate world after education etc. He also discussed real time corporate problems and possible solutions.



STUDENT ACHIEVEMENTS

Jyotik Simaria



Jyotik Simaria, student of 7th semester-IC is a member of GTU ROBOCON CLUB. Their team secured 9th rank at International level of ABU ROBOCON 2021. Hard Work of the whole team, made India proud and be recognized at International level of ROBOCON 2021.



Vinisha Fatania, Vedant Panchal and Dhruvrajsinh Piludariya

Students of 5th semester-IC, Vinisha Rasmitbhai Fatania, Vedant Dineshkumar Panchal and Dhruvrajsinh .R. Piludariya, had undergone training at Centre of Excellence in Automation at GTU, Chandkheda in July -Aug 2021 and got certificate of the same.



STUDENT CORNER

Smit Soni



Smit Soni, student of 7th semester-IC, had participated in Gujarat state Yogasana sports competition, organised by Surat yoga association on 26th September 2021. He got bronze Medal (3rd rank) in individual event and got selected for the National Yogasana championship.

Smit Soni

Soni Smit, student of 7th semester-IC, had participated in Gujarat State Yogasana Sports Championship 2021 (Online Mode) and achieved 2 gold medals and 1 bronze medal in different categories.

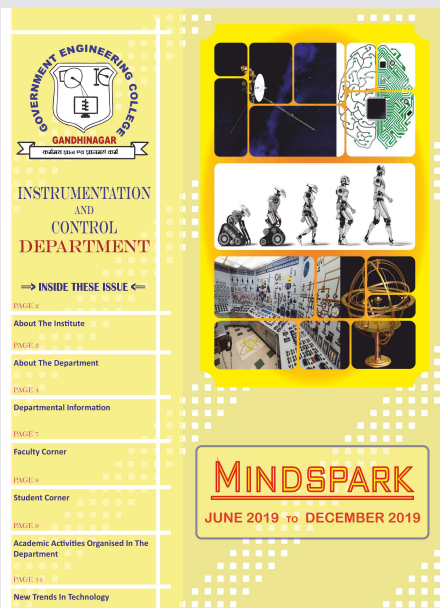


A BIG

THANK YOU

& WELCOME

A BIG "THANK YOU" to our Newsletter team (MIND SPARK).



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Keval Dharaiya

Akshaysingh Chaudhary

Vedant Panchal

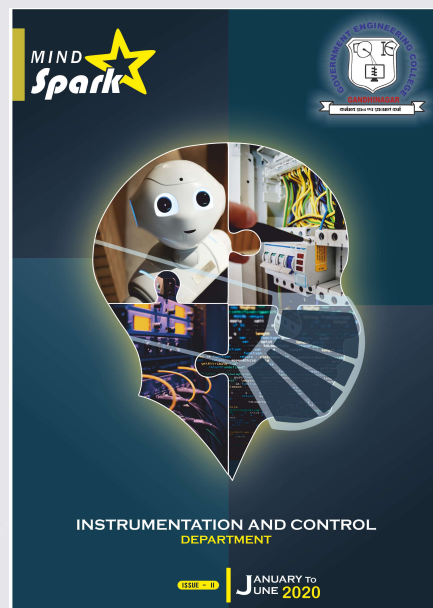
Vinisha Fatania

Dhruv Dudhwala

Dhruvrajsinh Piludariya

Dhwanit Patel

Yogita Bhimani

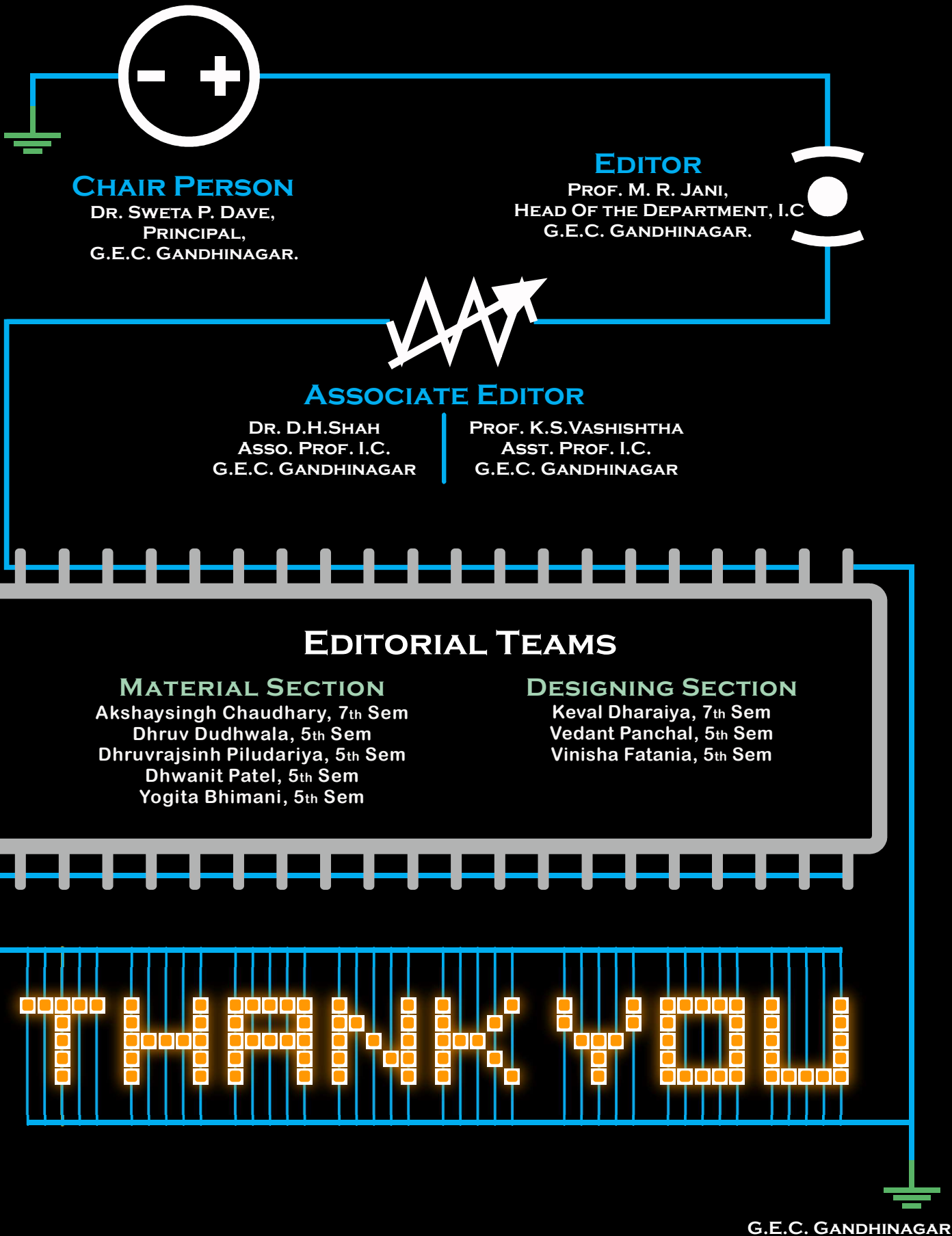


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thank
you



CHAIR PERSON

DR. SWETA P. DAVE,
PRINCIPAL,
G.E.C. GANDHINAGAR.

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PROF. M. R. JANI,
HEAD OF THE DEPARTMENT, I.C
G.E.C. GANDHINAGAR.

ASSOCIATE EDITOR

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ASST. PROF. I.C.
G.E.C. GANDHINAGAR

PROF. K.S.VASHISHTHA
ASST. PROF. I.C.
G.E.C. GANDHINAGAR

EDITORIAL TEAMS

MATERIAL SECTION

Akshaysingh Chaudhary, 7th Sem
Dhruv Dudhwala, 5th Sem
Dhruvrajsinh Piludariya, 5th Sem
Dhwanit Patel, 5th Sem
Yogita Bhimani, 5th Sem

DESIGNING SECTION

Keval Dharaiya, 7th Sem
Vedant Panchal, 5th Sem
Vinisha Fatania, 5th Sem

THANK YOU

G.E.C. GANDHINAGAR