



A.D. PATEL INSTITUTE OF TECHNOLOGY
(A Constituent College of Charutar Vidya Mandal University)

VIDHYUT

ELECTRICAL ENGINEERING NEWSLETTER

“ELECTRIFYING THE WORLD”

DECEMBER 2020 - ISSUE NO.1



DEPARTMENT OF ELECTRICAL ENGINEERING
NBA Accredited (2019-2022)
A. D. PATEL INSTITUTE OF TECHNOLOGY
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ADIT
A D PATEL INSTITUTE
OF TECHNOLOGY



FROM THE DESK OF PRINCIPAL



Electrical Engineering department ADIT has been creating a great value for its students, industry and society at large. The Department is NBA accredited two times 2009-2012, and 2019-2022. The department has well equipped laboratories with state of the art instrumentation where students are imparted practical and hands on experience. The members of ADIT Electrical Engineering fraternity are contributing to various national and multinational companies in Power sector passionately. Students have been placed in many good companies during last academic year. The Alumnus of this department are working in various distinguished organizations. I congratulate the department on bring out the newsletter which will enable stakeholders to get aware about the achievements of faculty and students of the Electrical Engineering Department.

Dr. Vishal N. Singh,
Principal, ADIT

FROM THE DESK OF THE HEAD OF DEPARTMENT



I have great pleasure and pride to release the First issue of the Newsletter VIDHYUT - ELECTRIFYING THE WORLD for Electrical Engineering Department of A.D.Patel Institute of Technology. This Newsletter outlines the activities carried out by the Electrical Engineering department during the period of 14 March 2020 to 31 December 2020. Department of Electrical Engineering is putting all kind of efforts to ensure the holistic development of the students. During the Covid-19 pandemic department had organized many online lectures, expert sessions. I congratulate all the students and Faculty members of the department for active participation in all the activities. Department of Electrical Engineering is thankful to Principal, Dr. V N Singh and Charutar Vidya Mandal (CVM), Vallabh Vidyanagar for providing all kind of facilities and support. I wish that this Newsletter will work as a platform for department faculty members and students to show their efforts and achievements for the department.

Dr. Hardik A. Shah
Head- EE, ADIT

MESSAGE FROM EDITORIAL BOARD



As an Editor of “VIDHYUT”, First newsletter of Electrical Engineering Department, I Convey my sincere thanks to all members who supported me for making this happen, special thanks to Teaching staff of EE Department. This newsletter presents the vision and mission of our department. It also covers the highlights of various events which we organized round the year. It also showcase the various activities and achievements of students and staff members. I hope that this “VIDHYUT” newsletter will encourage many more students to come forward and express their creativity and talent. I’m thankful to Dr. Hardik Shah (Head, Electrical Engineering Department) for providing continuous motivation, support cooperation for this newsletter.

- Prof. Paresh R. Modha,
Assistant Professor, EE ADIT

ABOUT CHARUTAR VIDYAMADAL

One of the greatest sons of India Late Sardar Vallabhbhai Patel inspired Shri Bhaikaka and Shri Bhikabhai Saheb for rural resurgence of post-independent India through education, and Charutar Vidya Mandal was born. Charutar Vidya Mandal was established in the year 1945 as a charitable trust with a prime objective of rural development through education to bring about the social awakening, social upliftment and enrichment. The uniqueness of Charutar Vidya Mandal lies in its ability to use quality education as a powerful means of social transformation. It was a stupendous task for the founders to establish a visionary organization; but the large-heartedness and high sense of philanthropy of this region made this possible. Over the subsequent years, Late Dr. H M Patel consolidated the efforts put in by the founders. Later on, in the 1990s, when Late Dr. C L Patel took over the reigns of Charutar Vidya Mandal as the Chairman, the country was facing a major economic and ideological change paving the way for globalization and liberalization.

Today Charutar Vidya Mandal is empowering budding graduates to live up to the ever-changing environment and equipping them to face the Third Millennium with confidence and competence. Building competitive advantages is the renewed focus of Charutar Vidya Mandal in the 21st century. At present, Charutar Vidya Mandal operates under the chairmanship of Er. Bhikhubhai B. Patel, 48 Educational Institutions from schools to colleges and a sophisticated Research Institute, with over 30,000 students on the rolls. CVM University was inaugurated on the day of Platinum jubilee celebration of CVM by Hon. Vice President of India.

ABOUT CVM UNIVERSITY

Charutar Vidya Mandal University (CVMU) is established in the year 2019 as a largest self-financed state private university with a prime objective of imparting quality education for current and future needs of individual, society and the Nation. The CVM University offers programmes in more than nine academic disciplines. The initial size of the CVM University is largest among all private universities of Gujarat and Around 10,000 students and 560 well-qualified faculty members and almost the same number of non-academic staff members are the part of the CVM University.

ABOUT NEW VALLABH VIDYANAGAR

New Vallabh Vidyanagar - a self contained satellite township established under the dynamic leadership of visionary Chairman of that time Late DR. C. L. Patel who believed in ‘Think Globally and Act locally’. The campus spans over 100 acres of area and located behind the industrial belt of Vithal Udyognagar. This campus encompassing various institutes of advance learning including Engineering, Pharmacy, Biotechnology and Allied Sciences, Ayurved, Architecture and Interior design, Business and hospitality management and research institute on renewable energy. The campus is also equipped with Boy’s and Girl’s

hostels with mess, staff apartments, Principal's Bungalow, amenity building with shopping and medical facilities and landscaped public garden. This township is a nourishing ground for budding technocrats which are going to play pivotal role in the future of the region and state in particular and country in general.

ABOUT INSTITUTE

A D Patel Institute of Technology is one of the pioneering institute imparting technical education in the state of Gujarat, India. It is established in the year 2000 and managed by Charutar Vidya Mandal (CVM), one of the leading trust of the nation established in 1948. The institute is located in satellite township of New Vallabh Vidyanagar having green natural environment and beautiful landscape near educational hub of the state, Vallabh Vidyanagar and Milk city Anand. Institute offers B.E. courses on Electronics and Communication Engineering, Computer Engineering, Information Technology, Electrical Engineering, Mechanical Engineering, Food Processing Technology, Civil Engineering and Automobile Engineering. Four departments namely Electrical Engineering, Mechanical Engineering, Information Technology and Food Processing Technology got NBA Accreditation for the Year 2019-2022.

VISION:

To add significantly to our enduring civilization tradition of pioneering excellence in learning, knowledge, enlightenment and self-realization, in a universally relevant context.

MISSION:

We dedicate to the perpetuation of our founders vision of providing the infrastructure, facilities, operating conditions and overall environments conducive to education of young scholars, along with the desired physical, mental & character building inputs; we firmly renew our commitment to provide value added, globally relevant education with an emphasis on the techno-management domain, to ensure that our scholars fruitfully exercise their knowledge, skills & values in the global economy.

ELECTRICAL ENGINEERING DEPARTMENT AT A GLANCE:

VISION:

Developing excellence in Electrical Engineering through a globally relevant perspective skill and knowledge.

MISSION:

1. To impart quality education.
2. To produce value-oriented professionals with strong theoretical foundation and practical skills.
3. To facilitate interaction between academia and industry.

PROGRAM OUTCOMES [POS]:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OUTCOME [PEOS]:

1. Professionals with extensive and intensive development of academic knowledge and skills.
2. Ability to analyse the problems and come out with solutions through software and hardware approach.
3. Graduates with instil sound foundation in mathematics, computing techniques, science and humanities along with professional courses and to provide conducive environment for futuristic technology development of society
4. To produce graduates who can exhibit the moral and ethical values in their professional conduct.

PROGRAM SPECIFIC OUTCOMES [PSOS]:

1. To exhibit the ability to design, operate, control and analysis of electrical engineering Problems.
2. To carry out design, testing and analysis of the data through simulations studies.

- ❖ Seven Laboratories of the Department are equipped with advanced equipments/instruments.
- ❖ State-of-the-art Seven laboratories equipped with advanced software's like PSCAD/EMTDC, MATLAB, PSIM and MiPower.
- ❖ Dedicated equipments like Power Quality Analyzer, High resolution DSO, Digital/Numerical relay, relay testing kit and special Machines, APFC panel for HT switchyard.



DETAILS OF STAFF MEMBERS

Name of faculty	Designation	Qualification	Experience
Dr. Hardik A. Shah	Associate Professor & Head	B.E, M.E, Ph. D	18 years
Dr. Kalpesh J. Chudasma	Associate Professor	B.E, M.E, Ph. D	18 years
Prof. Mitesh B. Astik	Assistant Professor	B.E, M.E, Ph. D (Pursuing)	16 years
Prof. Minesh K. Joshi	Assistant Professor	B.E, M.S. Ph. D (Pursuing)	12 years
Prof. Paresh R. Modha	Assistant Professor	B.E, M.E.	9 years
Prof. Vishal S. Sheth	Assistant Professor	B.E. M.Tech, Ph. D (Pursuing)	12 years
Prof. Dhaval N. Tailor	Assistant Professor	B.E, M.E, Ph. D (Pursuing)	9 years
Prof. Jigar N. Mistry	Assistant Professor	B.E, M.E.	8 years
Mr. Ketan Patel	Lab Assistant	Diploma (Electrical)	18 Years
Mr. Hiten Ataliya	Lab Assistant	Diploma (Electrical)	16 years
Mrs. Manisha Patel	Lab Assistant	Diploma (Electrical), B.A.(English)	14 years
Mr. Hardik Solanki	Lab Assistant	Post Diploma in Dairy Engg Diploma (Electrical), B.A.(English)	14 years

INDUSTRIAL VISITS ORGANIZED BY DEPARTMENT

Department is organizing Industrial Visits to provide Industrial Exposure to the students at following companies frequently, some of them are Wanakbori Thermal Power Station, GETCO Substation, Adani, Atlanta Transformers, ABB, ERDA, Amul, Jyoti Switchgear, Anupam Ltd, Spreri, NeoCab, Kakrapar Nuclear Plant.

EXPERT TALK

Following Sessions were delivered by Eminent Speakers arranged by Department.

Sr. No.	Date	Name of Expert	Institute/Organization	Topic
1	13 April 2020	Dr. Ami Patel	GEC Bharuch	The role of Transmission Insulators in Modern Power System Advancement
2	13 April 2020	Dr. Chetan Upadhyay	LDCE, Ahmadabad	Introduction to Electric Vehicle
3	30 May 2020	Er. Pratik Gaure	National Field Services, USA	Global Power Grid
4	4 July 2020	Er. Rajat Patel	Design Assistant, M-light Private Limited Australia	Future scope of Electrical Engineering in India & abroad
5	19 Aug 2020	Prof. Brijesh Patel	GEC, Palanpur	Innovation by Design & Become Technoprenuar
6	5 Sep 2020	Er. Vimal Sharma	Bombardier, Vadodara	Railway Engineering from Electrical perspective

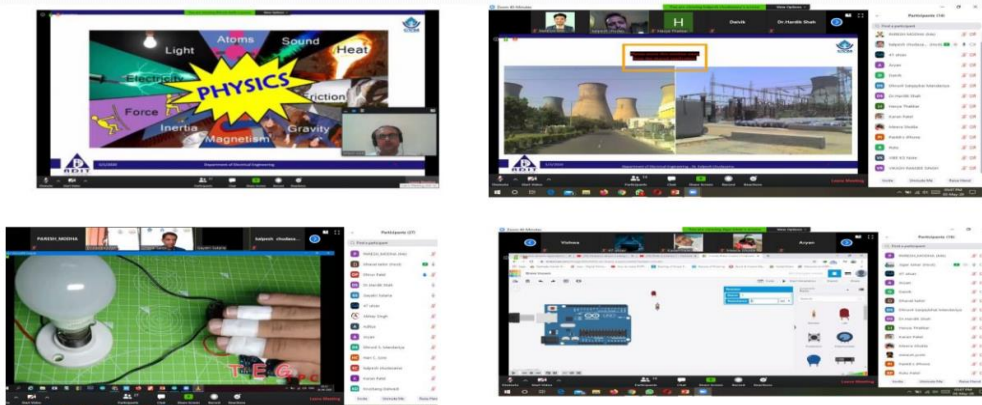
Department faculty members are invited for delivering Expert Talk.

Sr. No.	Date	Name of Expert	Institute/organization	Topic
1	06 Feb 2020	Dr. K.J. Chudasama	Bbit, V V Nagar	Energy Conservation, Electrical Safety & Substation Equipment
2	13 Feb 2020	Prof. D. N. Tailor	Govt Polytechnic Chota Udepur	Applications Of Micro Controller To Electrical Engineering
3	5 Mar 2020	Prof. M.K. Joshi	Govt. Polytechnic, Dahod	Maintenance Of Transformer
4	11 May 2020	Dr. K. J. Chudasama	Dr. S S Gandhi Polytechnic, Surat	Electrical Energy Conservation
5	24 May 2020	Dr. K. J. Chudasama	Rnpti, Bardoli	Electrical Safety
6	20 Aug 2020	Prof. P. R. Modha	Bhavans College, Dakor	Awareness Swayam, NPTEL

PHOTO GALLERY OF EXPERT TALK



Expert talk by Er. Vimal Sharma, Bombardiar



Webinar by EE Department faculty members for School students during Lock Down

A D PATEL INSTITUTE OF TECHNOLOGY
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MECHANICAL ENGINEERING & ELECTRICAL ENGINEERING DEPARTMENT
(NBA ACCREDITED AND IEEE PES CHAPTER-ADIT PRESENTS)

WORLD ENERGY DAY CELEBRATION

Mr. Asinkumar Joshi
Senior Scientist, Solar Energy Division, Sector Panel Renewable Energy Research Institute (SPERI)

Topic : Solar energy technologies and applications

Mr. Atul Dave
Retired additional General Manager, GNPIC, Bharuch

Topic : Future trends in Renewable energy

Time : 2:00 p.m. to 4:00 p.m.
Date : 22nd October 2020

Conveners :
Dr. Mitesh Shah
Head, Mechanical Engineering Department
Dr. Hardik Shah
Head, Electrical Engineering Department

Register Now!
<https://forms.gle/5dPC9v8A866K75R>

Co-ordinators :
Dr. Ronak Shah (92650 18435)
Mr. Dhaval Tailor (96012 90378)

A. D. Patel Institute of Technology
Department of Electrical Engineering presents,
(NBA ACCREDITED)

Webinar on

FUTURE SCOPE OF ELECTRICAL ENGINEERING IN INDIA & ABROAD

No Registration Fees!

Time: 4th July 2020, 10:30 am IST
Last Date to Register:
3rd July 2020, upto 4pm

MR. RAJAT J. PATEL
Design Assistant, mlights Pvt.Ltd,
Hallam, Victoria, Australia

Register Now!
bit.ly/2Zt0zQb

For any query, feel free to contact
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+91 85111 10634
Dr. Hardik A. Shah
+91 98243 94393

STUDENTS' PLACEMENTS IN A.Y. 2019-20

SR NO	ENROLLMENT NO.	NAME	NAME OF COMPNAY
1	160010109029	Patel Smit Jagdishbhai	Techno LED
2	160010109012	Joshi Hitarth Himanshukumar	Western Shipping
3	160010109050	Yadav Sanket Jagatpal	Polycab, Halol
4	160010109022	Parmar Princekumar Bipinbhai	Western Shipping
5	160010109017	Mirza Azazbag Najirbag	Chegg India
6	160010109034	Abhay Shah	Chegg India
7	160010109039	Sharma Ronakkumar Bharatbhai	Electrical Research And Development Association (ERDA)
8	160010109005	Chauhan Dharmendrasinh P	Byju's
9	170013109006	Akash M Modha	Varroc, Ahmedabad
10	170013109010	Bhavya Sheth	Varroc, Ahmedabad
11	170013109007	Bhautikkumar P Mordia	Varroc, Ahmedabad
12	160010109015	Kachot Ankit Devayat	Vidya Wire, New V V Nagar
13	160010109006	Jay Kiritbhai Chawda	Electrical Research And Development Association (ERDA)
14	160010109032	Rana Nishipal Yashpalsinh	Capgemini
15	160010109002	Bansal Ankit Sheelendrakumar	Collabera

STUDENTS' ACHIEVEMENTS



Vineeth Rajan and Nishipal Rana, ADIT EE students Winners in CVM Monsoon Carnival Badminton Champions 2019-20



Vineeth Rajan & Nishipal Rana, ADIT EE students, Winners at GK QUIZ AMUL VOLCANO 2020.

LIST OF TOPPERS

Gtu – 4th Semester University Exam A.Y. 20109-20 (Even Semester)			
Sr. No.	Enrol No.	Name of Student	Spi
1	180010109012	Sagar Shah	9.57
2	180010109004	Ratnesh Dubey	9.43
3	180010109002	Aayush Chopra	9.39

Gtu – 6th Semester University Exam A.Y. 20109-20 (Even Semester)			
Sr. No.	Enrol No.	Name of Student	Spi
1	170010109006	Malavraj Chudaama	9.3
2	170010109021	Jaydev Suriya	9.0
3	170010109023	Vangara Teja	9
4	170010109017	Vrajesh Patel	8.8

Gtu – 8th Semester University Exam A.Y. 20109-20 (Even Semester)			
Sr. No.	Enrol No.	Name of Student	Spi
1	160010109039	Ronak Sharma	10
2	160010109032	Nishipal Rana	10
3	160010109014	Tarang Joshi	10
4	160010109029	Smit Patel	10

OUR DISTINGUISHED ALUMNUS

Sr.No.	Full Name	Year of Entry	Affiliation
1	Sohini Ghosh	2015	Morris Garages India Pvt. Ltd.
2	Sejal Shah	2013	GE Power India Ltd.
3	Murtuza Rupawala	2005	Siemens Ltd
4	Jigyesh Sharma	2008	Larsen & Toubro Limited (L &T)
5	Kuldeep Ruparelia	2008	ERDA
6	Anurag Chaturvedi	2010	Sgurr Energy India Private Limited
7	Shivani Sharma	2001	ABB- Hitachi
8	Vimal Sharma	2011	Bombardier
9	Shivangi Solanki	2016	Goldi Solar Ltd
10	Pallavi Sathe	2012	TCS
11	Priya Saxena	2012	TCS
12	Shukla Viral	2012	Adani Mundra Port
13	Amar Patel	2012	Adani Mundra Port
14	Mansi Chonani	2014	MG Motors
15	Tapan Kakadia	2008	GETCO Substation
16	Khushal Joshi	2005	GSECL- Wanakbori Thermal Power Plant
17	Jagdish Vaghela	2015	Anupam Engineering Ltd
18	Vihar Doshi	2004	Elecon Ltd
19	Anupam Kher	2005	Essar Ltd
20	Bhargav Lathigara	2015	Goldi Solar Ltd.

OUR ALUMNI TESTIMONIAL



ADIT has made rapid treads in providing all the required facilities including academic, cultural, sports & technical fest. It is possible due to dedicated faculty, staff & highly ignited student community. The versatile heirloom & background is a strength of this institute. It's a good place to meet like- minded people and learn and grow together. The campus community forms a close knit group and you make friends for life here. The campus, the people and this life has made a stronger and confident person. To conclude the quality of education imparted & with their transparent and efficient day-to day functioning, are accessible to vast majority of ADITians.

Jigyesh Sharma

Year of Passing: 2012 B.E(EE), ADIT

-Assistant manager(Power System Engineering)

Larsen & Toubro Limited



ADIT- It's much different then any other college I've been too! The atmosphere, surroundings have been overwhelming. I can consider ADIT as my 2nd home as teachers are very much supportive. ADIT has certainly helped build me up professionally when I started building up my technical and interpersonal skills and I am thankful to Teachers and staff. The approach of faculties towards students is really appreciated as they not only push students about studying but even focusing on Extra-curricular. I am thankful to Placement cell for assisting me out with my placements in Byju's. Thank You ADIT!!! Always an ADITian.

Sarthak Shah

Year of passing : 2019, EE

Lead Consultant-SAWG IEEE Smart Village

IEEE Computer Society Richard E Merwin Scholar

IEEE Computer Society Regional Liaison

IEEE Collabratec Lead Ambassador

INNOVATIVE STUDENTS' PROJECTS BY DEPARTMENT

Sr. No.	PROJECT TITLE
1	Design And Development Of Digital Protection For Power Transformer
2	Forest Fire Monitoring System
3	Iot Based Smart House Control
4	Simulation And Hardware Implementation Of Sine Pwm Vsi Fed Three Phase Induction Motor Drive
5	Active Front End Converter
6	Stability Enhancement Of Transmission Line Using Single Pole Autoreclosing Scheme In Three Phase System
7	IOT Based Induction Motor Monitoring
8	"E-Cycle Garbage Collector
9	Automatic Winding Machine For Flyer Type Coil
10	IOT Based Home Automation
11	IOT Based Transformer Monitoring And Control System
12	PLC Based Fault Detection And Protection Of Induction Motor
13	Monitoring And Utilization Of Rainwater
14	Power Transforming Action Using Power Electronics Coverter
15	Automated Pill Sorting And Dispensing Machine
16	Automatic Stamping And Color Detecting Using Plc
17	Autonomous Army Tank With Nanorobot Support
18	Comparison Of Power Generation Using Wind, Wind And Solar Hybrid And Wind Solar Hybrid With Sun-Tracking System
19	Heart Beat Monitoring For Survivor Patient And Primary Treatment By Robotic Arm
20	Design And Analysis Of Cascaded H – Bridge Multilevel Inverter
21	Stand Alone Solar Based Vacuum Cleaner For 2 Wheeler Applications
22	IOT Based Feedback Control Of D.C. Motor Using Labview
23	Bldc Motor Speed Control Wirelessly Using Radio Frequency Technology
24	Hybrid Power Generation Using Solar And Wind
25	Image Processing And Plc Based Product Sorting System
26	Integration of Flexible solar Panel With Engine Alternator
27	Software Simulation And Hardwre Implementation Of Power Transformer Protection Using Arm Controller
28	Power Consumption Reduction Of Material Handling System Using VFD Drive

Disclaimer: All information published in this newsletter is based on institutional events and report generated at A.D Patel Institute of Technology. The purpose of this newsletter is for academic and educational only. The editor or publisher does not take responsibility for the content presented during the events. Errors, if any, are purely unintentional and readers are requested to communicate such errors to authorities.

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