Index

Message

I feel immensely pleased to know that the College of Technology and Engineering (CTAE) is publishing its annual magazine "TECHVIEW-2019". This constituent College of Maharana Pratap University of Agriculture & Technology , Udaipur stands as a monument of teaching, research and extension in the field of technology and engineering with magnificent history of 55 years. The glory of the college is truly manifested by the sublime alumni, which is contributing significantly in the technological progress of the country.

The institution attracts research grants from various funding agencies and provides an opportunity for the students to involve in research. The clinical trials, government sponsored research projects and private funded projects provide an opportunity for the faculty and the researchers to hone their research skills. Our institute is constantly developing international healthy campus which will further improve education and innovations. In recent times, the students of College of Technology and Engineering did some remarkable innovations in the field of agricultural engineering which has brought fame at international level.

The magazine "TECHVIEW-2019" gives a first-rate overview of the departments and existing facilities along with vivid presentation of the activities held in during the year passed by. It also gives true reflection of the consistent endeavors of the faculty and students in true spirits. I have all appreciation for the Dean, faculty, staff members and students in upholding the glory of the College.

While congratulating the editorial board for painstaking efforts in bringing out the magazine, I wish CTAE fraternity all the success in their future ventures.

Prof. J. P. Sharma
Vice Chancellor

Message

It is a matter of immense pleasure that our college is going to publish its college magazine "TECHVIEW-2019". It includes significant contribution made by Heads of Department, Faculty Members, Non-Teaching Staff and students through various reports, articles, sketches. The academic session 2018-19 was full of many technical and non-technical events. Whole college was extremely engaged in academic and other extra co-curricular activities, despite of that the contribution from college members in this magazine is admirable.

Contribution and achievements of our students during the last year in NCC, NSS, Sports, Seminar, workshops, Conferences, GATE and CAT Examination etc, are really admirable. Further, I am very happy to convey my thanks to my college students and faculty members who have also achieved several awards, presented research works at national and international platforms, organized academic events, completed several projects of national interest and so, which brought the good name of our college ranking amongst the top Institutions of India and the college has got NBA accreditation in Post Graduate Programme of Agricultural Engineering.

Over the past 55 years, CTAE is nurturing thousands of engineers, and we continuously striking towards excellent ways of nurturing the young minds that solely shall remain our aim.

I congratulate the members of Editorial Board Dr. Trilok Gupta, Dr. Chitranjan and Dr. Jai Kumar Maherchandani, besides the student members for tireless efforts to bring out this magazine in excellent manner. I also convey my congratulations and gratitudes to all our young talents, who have generousy contributed to this annual magazine. I also wish to express my gratefulness to the Hon'ble Vice- Chancellor Prof. J. P. Sharma, whose motivation has led to bring out this magazine in such a good form.

Finally, I wish God's blessings to preserve the past, promote the present and create a better future.

Prof. Ajay Kumar Sharma
DEAN

Message

In continuation to the previous issues of Techview magazines, the "TECHVIEW-2019" is published that includes the various academic activities, literary contributions as poem, articles, sketches and drawing. This magazine plays an important role to bring the efforts of various branches in the form of words and provide platform to recollect old memories of several events during the year in the college. It is a difficult task to collect the information about the events took place during the whole year in college. It could have been successful with the help of our briliant and hard working student editors. The editors of this issue, Dr. Chitranjan Agarwal and Dr. Jai Kumar Maherchandani, have given their valuable insight to get it published as a nice source of information to all the readers of "TECHVIEW-2019".

The boundless energy of youth should find right direction to lead happy life. It can be achieved by small steps. First step of success ladder is opening up the opportunities provided by the college to showcase one's talent. One of such step is magazine, where ideas are visualized. It will be a good platform for all the talented students to share and express their knowledge.

On behalf of the editorial team, I would like to express our gratitude to Patron and Dean of the college, Prof. Ajay Kumar Sharma. Further, I would like to express, heartily thanks to our Hon'ble Vice Chancellor Prof. J. P. Sharma Sir for providing his blessings to "TECHVIEW-2019". Finally, I politely apologize to all, whom I have, unknowingly, forgotten to address for their timely support. The "TECHVIEW-2019" is published in a very short time duration, even, I hope that it may be liked by the readers. The editorial team is keenly interested to receive the feedback for improvement of the next edition of the "Techview" magazine.

Dr. Trilok Gupta
Editor in Chief

C T A E

The College of Technology and Engineering, Udaipur (CTAE) is a constituent college of the Maharara Pratap University of Agriculture and Technology, Udaipur. The college was started in 1964 with a Graduate Programme in Agricultural Engineering. Presently undergraduate degree programmes in 8 branches, M.Tech. programmes in 12 disciplines, PhD programmes in 9 disciplines The college has been recognized as outstanding engineering college in northern region and has been awarded "Outstanding Institution Award" in 2013 by National Institute of Technical Teachers Training and Research, Chandigarh (a Ministry of Human Resource and Development, Government of India, Institute). A project funded by Ministry of Human Resources Development through World Bank on Technical Education Quality Improvement Project (TEQIP-III) worth INR/ 15.0 crore is also functional in this college with the objectives of strengthening laboratories, developing smart-class rooms, enriching college library by procuring, books, e-books and subscribing to journals and undertaking several activities to increase the quality of teaching. The college has dynamic curriculum at par with best in the country, qualified & dedicated faculty, supportive staff and excellent infrastructure, the college is preferred destination of top ranking students of the state. The college has been witnessing excellent placement by top recruiters in the country it is situated at about 7 km from Udaipur city railway station and bus terminal and 2 km from Rana Pratap Nagar railway station.

A Tribute

Dr. K. N. Nag
(1927-2019)

*"We know for certain that we never lose the people we love, even to death.
You continue to participate in every act, thought and decision we make.
Your love leaves an indelible imprint in our memories. We find comfort in
knowing that our lives have been enriched by having shared your love."*

Dr. Kedar Narayan Nag, the sculptor of Agriculture Education, was the founder Dean of College of Technology and Agricultural Engineering, now known as College of Technology and Engineering, Udaipur. He led this college as Dean from 1967 to 1985. The college has acquired present status only because of his vision and leadership. He was elevated to the post of Vice Chancellor of Mohan Lal Sukhadia University, Udaipur in 1985 where he served till 1987 after which he was appointed as founder Vice- Chancellor for Rajasthan Agricultural University, Bikaner. He was a pioneer of agriculture education in the state of Rajasthan and at national level and served on number of National Committees under various ministries of Government of India and Rajasthan and other bodies. He was honored with many awards and recognitions by various International and National organizations for his contributions to Agricultural education and social impact.

We pay our homage to him and pray god to rest his soul in peace.

Editorial Board

Prof. Ajay Kumar Sharma
Patron & Dean

Dr. Trilok Gupta
Editor in Chief

Dr. Chitranjan Agrawal
Editor

Dr. Jai Kumar Maherchandani
Editor

Student Editors
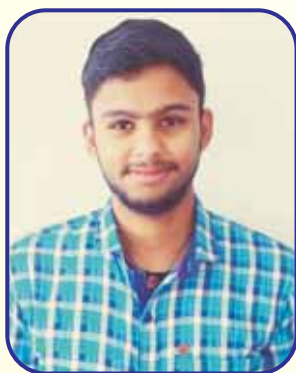
Hritik Kumar Sharma
II Year, CSE

Ami Sharma
I Year, AE

Jayant Banshiwal
I Year, EE

The views expressed in the Magazine (TECHVIEW 2018-19) are those of the authors and don't necessarily represent the views of the Editorial Board.

Head of Departments

Dr. S. M. Mathur
Farm Machinery &
Power Engineering

Dr. Sudhir Jain
Renewable Energy
Engineering

Dr. H.K. Mittal
Soil & Water Engineering

Dr. S. C. Jain
Mining Engineering

Dr. R. R. Joshi
Electrical Engineering

Dr. Sunil Joshi
Electronics & Communication
Engineering

Dr. Naveen Choudhary
Computer Science Engineering
Information Technology

Dr. A. K. Chittora
Basic Science

Dr. Ravi Sharma
Civil Engineering

Dr. P. S. Champawat
Processing &
Food Engineering

Dr. M. A. Saloda
Mechanical Engineering

Success consists of doing the common things
of life uncommonly well.

Unit Incharges

Dr. Deepak Sharma
Administrative Officer

Dr. Anupam Bhatnagar
OSD Finance/Administration

Dr. S.C. Jain
Co-ordinator-UG Studies

Dr. Sudhir Jain
Co-ordinator-PG Studies

Dr. Trilok Gupta
ADSW & CLSU Advisor

Dr. Vinod Kumar
Placement Bureau

Er. S. B. Sahay
Games Council

Lt (Dr.) P. S. Rao
NCC

Dr. J. K. Maherchandani
NSS Officer Unit-1

Er. Manjeet Singh
NSS Officer Unit-2

Dr. K. K. Yadav
Rover Scout

Er. S. S. Meena
Rover Scout

*A happy person is a person in a certain set of circumstances,
but rather a person with a certain set of attitudes.*

Unit Incharges

Er. Kalpana Jain
Rover Scout

Dr. S. R. Bhakar
Technology Park

Er. Ranveer Shekhawat
Yoga

Dr. Naveen Jain
Library

Dr. S. K. Jain
TOCIC

Dr. Mahesh Kothari
TEQIP

Dr. S. Jindal
NewGen

Dr. Vikramaditya Dave
TBIC

College Level Student Union 2018-19

Aayush Vyas
President

Vikram Singh Chouhan
General Secretary

Abhimanyu Singh Chouhan
Joint Secretary

Time isn't the main thing. It's the only thing

Hostel Wardens

Dr. P. K. Singh
Chief Warden

Dr. M.S. Khidiya
GSM Boy's Hostel

Dr. Vikramaditya Dave
MV Boy's Hostel

Dr. Chitranjan Agarwal
P.G. Boy's Hostel

Dr. N. L. Panwar
Ph.D. Boy's Hostel

Dr. B.L. Salvi
NSCB Boy's Hostel

Er. Ranveer Shekhawat
ANK Boy's Hostel

Dr. Deepak Rajpurohit
ANK Boy's Hostel

Dr. Nikita Wadhawan
CTAE Girl's Hostel

Dr. Hemu Rathore
Ganga Girl's Hostel

Er. Akhil Avchar
MV Boy's Hostel

It's hard to beat a person who never gives up

Students' Club Incharges

Dr. R. C. Verma
Chief Coordinator

Dr. Naveen Choudhary
Programming Club

Dr. Deepak Sharma
Literary Club

Dr. Sunil Joshi
Electronics & Robotics Club

Dr. H. K. Mittal
Theatre Club

Dr. S. R. Bhakar
Wellness Club

Dr. Sudhir Jain
Energy Club

Dr. A. K. Chittora
Creative & Fine Art Club

Dr. Vikramaditya Dave
Photography & Cine Club

Dr. M. S. Khidiya
Music & Dance Club

Er. Manjeet Singh
Adventure Club

Er. S. B. Sahay
Sports & Games Club

Dr. S. Jindal
Innovation Club

What a teacher is, is more important than what he teaches.

Agricultural Engineering
B. Tech. Final Year, 2018-2019

Civil Engineering

B. Tech. Final Year, 2018-2019

Computer Science & Engineering
B. Tech. Final Year, 2018-2019

Electrical Engineering
B. Tech. Final Year, 2018-2019

Electronics & Communication Engineering

B. Tech. Final Year, 2018-2019

Information Technology

B. Tech. Final Year, 2018-2019

Mechanical Engineering
B. Tech. Final Year, 2018-2019

Mining Engineering
B. Tech. Final Year, 2018-2019

Agricultural Engineering

M. Tech. Final Year, 2018-2019

Mechanical Engineering

M. Tech. Final Year, 2018-2019

Awards
Sansad Adarsh Garm Yojna (SAGY)

- ❖ College of Technology and Engineering, MPUAT, Udaipur, Rajasthan grabbed the top spot in the Sansad Adarsh Gram Yojana (SAGY) Awards presented to AICTE approved institutions at national level.

  The award was presented by Vice President Shri M. Venkaiah Naidu institutions at an event organized by All India Council for Technical Education (AICTE) on January 21st, 2019 in New Delhi. College of Technology and Engineering Udaipur, Rajasthan was followed by Seethi Sahib Memorial Polytechnic College, Tirur, and Kerala Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu at second and third position. Sansad Adarsh GramYojana (SAGY) was launched in October 2014 with the aim to translate the comprehensive vision of Mahatma Gandhi of an ideal Indian village. Under the scheme, Member of Parliament adopted Gram Panchayats for its holistic progress. AICTE has encouraged institutes located in proximity of villages which can be supported under the scheme. These institutes have been working hard to develop the adopted villages. AICTE instituted the SAGY Award with an aim to motivate, recognize and honor the institutions under the theme **"Developed Village-Developed Nation"** to raise their performance in the specific domains leading to significant contribution for the growth and development of villages and Country as well. Under this Award, 103 nominations were received from AICTE approved institutions across the country. The 24 entries were scrutinized at different stages and judged by a jury of eminent experts in the field.

❖ Dr. S.C. Jain, Assoc. Professor & Head, Department of Mining Engineering, CTAE, Udaipur has honoured for his contribution to Mining Engineers' Association of India (MEAI) in respect of "MEAI Abheraj Baldota Memorial Gold Medal Award (Mining Engineer of the year 2017) on 30th June, 2018 at Jaipur .

Dr. S. C. Jain awarded "MEAI Abheraj Baldota Memorial Gold Medal Award"

❖ Dr. P.K. Singh, Professor, Department of Soil & Water Engineering, CTAE, Udaipur awarded UNIVERSITY BEST TEACHER with a cheque of Rs. 50,000/- as per ICAR guidelines on the occasion of Republic Day - 26th January, 2019 by the Hon'ble Vice-Chancellor Prof. Uma Shankar Sharma. On this occasion, Shri Manoj Agrawal, Lab Assistant and Sh. Dilip Bhatnagar, Clerk Grade-II were also honoured for their commendable works done by them during their services in the university.

Dr. P. K. Singh of CTAE was awarded University Best teacher

❖ Prof. S.R. Bhakar, Professor SWE, Prof. P.K. Singh, Professor, SWE, Prof. Mahesh Kothari, Professor, SWE, Prof. H.K. Jain, Professor, RCA, Ms. Priyanka Sharma, Research Scholar, SWE,Mr. Shakir Ali, Research scholar, SWE have been awarded JAE Best Paper Award 2018 for the research paper **"Generation of Synthetic Streamflow of Jakham River, Rajasthan using Thomas - Fiering Model"** by the Indian Society of Agricultural Engineers on 28th January, 2019 at Varanasi during ISAE Convention. Certainly, it reflects a team work in the research area.

Dr. S.R. Bhakar receiving JAE Best Paper Award

❖ "Journal of Agrometeorology Best Paper Award YEAR 2016 and 2017" research paper entitled "Development of the crop coefficient for capsicum (Capsicum annum L.) under protected structures"

authored by Chitra Shukla, SR Bhakar and SS Lakhawat published in the Journal of Agrometeorology (2016), Vol. 18(2): 258-260, is adjudged as one of the Best paperpublished in this journal during years 2016 and 2017. The certificate has been presented to during Inaugural Function of International Symposium (INAGMET-2019) on "Advances in Agrometeorology for Managing Climatic Risks of Farmers" being held at JNU, New Delhi during 11-13 February 2019.

❖ Appreciation certificate by IEI (India) to Dr. S. R. Bhakar : Certificate of appreciation was awarded by The Institution of Engineers (India) on 51st Engineer's Day 15th September, 2018 for the outstanding professional contribution made during year 2017-18.

❖ Dr. S.M. Mathur, HOD, FMPE was invited in the 43rd ELCINA_EFY 2017-18 for Excellence in Innovation Award Ceremony held in Delhi on 14th September, 2018. TOCIC & PRISM units was developed new innovations as above.

❖ Dr. N. L. Panwar, Assistant Professor, Department of Renewable Energy Engineering was conferred with Rajasthan Energy Conservation Award 2018 by Department of Energy, Government of Rajasthan for his outstanding contribution in the field energy conservation at 9th Rajasthan Energy Conservation Award held at Indra Lok Stadium, Jaipur on 14th December, 2018.

Dr. N. L. Panwar receiving the award

❖ Dr. Trilok Gupta, Assistant Professor (Civil Engineering) got "APPRECIATION" award at University level.

❖ One of our innovation Blood Component Expresser was selected for Excellence in Innovation Award instituted by Electronic Industries Association of India (ELCINA). It was developed under TePP Outreach-cum-Cluster Innovation Centre (TOCIC) of Promoting Innovations in Individuals Starts-ups and MSMEs (PRISM) of Department of Scientific and Industrial Research (DSIR).

Dr. Trilok Gupta receiving the Appreciation Award at university Level

Achievement of Dr. S. M. Mathur at various institutes

Name of the Award/ Recognition/ Reviewer	Awarding Organization Year (Place/Country)		National/International Institutional/ Professional Society
Appreciation Certificate	The Institution of Engineers (India)	2018	Outstanding Professional Contribution
Excellence Award	DSIR, New Delhi	2018	Out Standing TOCIC in India
Gandhian Young Technological Innovation (GYTI) Award	SRISTI	2018	Received on March 19, 2018 at President House India
Appreciation Certificate	MPUAT Udaipur	2018	Awarded for the development of New Technology

❖ Mr. Ankit Jain and Mr. Shashi Pratap Singh received Raj Singh Award for the exceptional science work. The award has been awarded by Maharana of Udaipur Mr. Arvind Singh and supported by the Mewar Foundation, Udaipur

Mr. Ankit Jain & Mr. Shashi Pratap receiving Raj Singh Award from Maharana of Udaipur Mr. Arvind Singh Mewar

Mr. Narayan Lal Receiving the award In the President House, New Delhi

Mr. Ankit jain and Mr. Jitender Singh got first position at IIT Madars in Carbon Zero Challenge.

❖ The following two M.Tech. (Agricultural Engineering) Students of this college working in the project NewGen IEDC have been selected for the award of "Student-UP NIDHI Competition 2018-19" under the aegis of National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology, Government of India, New Delhi organized at EDII, Ahmedabad on 18-19th June, 2018:

i.   Ms. Anoosha Katakam (Farmer-Friendly Agri-Dryer)

ii.   Mr. Tanmay Mandala

These students had been selected among 1000 students and they were offered a sum of Rs. 10.0 lakhs (jointly) for establishing a own Start-Up" organization/ company with an agreement. Its a pride for our college.

❖   CTAE students performed well in the Digi Fest and one students Mr. Narayan Lal Gurjar awarded a Contract of Rs. 25 Lakh under Challenge for Change Programme of Govt. of Rajasthan. The   award was presented by **Hona'ble Chief Minister of Rajasthan** on July 27, 2018 at Bikaner in the Digi Fest.

Gold Medalist Students at University

S.No.	Name of Student	B.Tech./ M.Tech./Ph.D.	Name of Branch
1.	Miss Diksha Kunwar	B.Tech.	Agricultural Engg.
2.	Krish Kant Kumawat	B.Tech.	Information Technology
3.	Mustafa Iqbal	B.Tech.	Mechanical Engg.
4.	Harendra Kumar	B.Tech.	Mining Engg.
5.	Miss Divya Mehta	B.Tech.	Civil Engineering
6.	Miss Vanika Sahu	B.Tech.	Computer Science Engg.
7.	Miss Shivani Pujari	B.Tech.	Electrical Engineering
8.	Amol Agarwal	B.Tech.	Electronics & Comm. Engg.
9.	Miss Prashasti Sharma	B.Tech.	Agricultural Engg.(Jain Irrigation Medal)
10.	Miss Chesta Ojha	M.Tech.	Agricultural Engineering (Renewable Energy Engg.)
11.	Miss Mamilla Shravani	M.Tech.	Agriculture Engineering (FMPE)
12.	Pawar Dattatray	M.Tech.	Agriculture Engineering (IWME)
13.	Miss Veerisetty Yamuna Tejaswi	M.Tech.	Agricultural Engineering (SWE)
14.	Miss Ankita Sharma	M.Tech.	Agriculture Engineering (PFE)
15.	Miss Shweta Jaroli	M.Tech.	Electronics & Comm. Engg.
16.	Miss Laxmi Menaria	M.Tech.	Computer Sc. & Engg.
17.	Miss Aditi Swarnkar	M.Tech.	Electrical Engineering
18.	Patil Vinay Sharad	M.Tech.	Agriculture Engineering (Irrigation Water Management Engineering) (Jain Irrigation Medal)
19.	Bureddygari Sumanth Reddy	M.Tech.	Agriculture Engineering (Soil & Water Conservation Engineering) (Jain Irrigation Medal)
20.	Sujit Kumar	Ph.D.	Electrical Engineering
21.	Dheeraj Kumar	Ph.D.	Irrigation Water Management Engineering (Jain Irrigation Medal)

In first phase, nine such ideas were supported out of which one turned into a commercial venture and another one selected at national level "Startup NIDHI" award out of total 20 awards given in a year. One of the innovator Mr. Narayan Lal Gurjar and his Team won many awards on the basis of the novelty of his product "Eco-friendly Water Retention Polymer" including a fellowship by Royal Academy of Engineering, London, UK and recently invited to join the Accelerator programme at Okinawa University of Japan, with an offer of support worth Rs.67 lakh to start his Startup after completion of the programme..

Narayan Lal Gurjar and EF Polymer Team received Best Student start-up award from Royal Academy of Engineering London.

In addition to above, the team also won following national awards:

❖ Gandhian Young Technology Award 2018 by "President of India" at President House.

❖ Winner ECONOMIC TIMES and FACEBOOK COMPETITION "Power of Ideas" 2018, Getting Award by Cabinet Minister Mr. Suresh Prabhu.

❖ Winner Asia Level Competition Elixir Ideate Event at IIT Bombay.

❖ Raj Singh Award: State Level Award and Appreciation by Maharana Mewar Foundation.

❖ i3 2017 - Grand Award: i3 Silver Award for Best Innovator (Third Level).

❖ AICTE Award Winner For INDIA Most Promising Student Innovator.

❖ i3 - Klu - CIIE i3 Award for Best Student Innovator.

❖ i3 - Symbiosis International (Deemed University) Award.

❖ i3 - Sidbi Startup Mitra Award for Most Promising Innovator.

❖ i3 - Unido ITPO Bahrain Award.

❖ Jan Jagran Event: Selected for National Level, Organized by Jan Jagran Newspaper and Start-up Oasis.

❖ Rajasthan Education Festival: Winner Award by CM Mrs. Vasundhara RajeSindhiya.

❖ Stupreneur: Organized by Startup Oasis TiE, Rajasthan, CIIE, Startup-Jalsa: National Level Selected, Organized by CIIE, Ahmedabad.

❖ Indigram Labs: Selected in Top 10 Agriculture Startup at India Level.

- ❖ National Youth Conference: Winner of Event, Organized by G.B. pant University, Uttarakhand.

- ❖ IIT Kanpur: Winner in Techkriti Event of Pitch Pitching

- ❖ IIT Mandi: Winner in Exodia in Event Engineer Emporium.

- ❖ Winner National Level Youth Parliament Debate Competition at Parliament, Delhi.

- ❖ Selected National Level Science Fair Competition.

- ❖ 15 Times Winner in Debate Extempore Essay Competition at College and School Level.

- ❖ EXHIBIT Project at GLOBAL RAJASTHAN AGRICULTURE MEET.

Students being awarded various prizes

Er. Kapil Kumar Samar, Project Manager of this center is awarded as "Young Scientist", on date 31.03.2019 by ITSR Foundation, Jaipur for contribution in research and publication in biogas technology.

Er. Kapil Kumar Samar receiving the award

CTAE in Newspapers

सीटीएई छात्र को यूके की फैलोशिप

उदयपुर. प्रौद्योगिकी व अभियांत्रिकी महाविद्यालय के अन्वेषक छात्र नारायणलाल गुर्जर के उपक्रम का लीडरशिप इन इनोवेशन फैलो कार्यक्रम के तहत रॉयल अकादमी ऑफ इंजीनियरिंग यूके के लिए चयन हुआ है। इसके तहत छात्र को दो सप्ताह के विशेष प्रशिक्षण के लिए लंदन बुलाया गया है। इसका खर्च संबंधित अकादमी उठाएगी। ये जानकारी महाविद्यालय के न्यू जेन आइडीसी समन्वयक डॉ. एस जिंदल ने दी।

बेस्ट वेटेरियन से वाटर रिटेंशन का सिस्टम बनाया
उदयपुर के नारायण को जापान का बुलावा

यह है प्रोजेक्ट

College awarded for model on doubling farm income

Jaipur: The College of Technology and Engineering (CTAE) in Udaipur has been awarded by vice-president Venkaiah Naidu in New Delhi for developing a 'farm model' for doubling the income of the farmers. The award was given in the category of doubling the food productivity. The agricultural department of the college has practically demonstrated the 'model' in five villages of Gogunda tehsil of Udaipur by introducing integrated framing system and water resour-

Vice-president Venkaiah Naidu gives away award to teachers in Delhi

UDAIPUR

ces development—innovative and technological interventions.

The target of double income was ascertained by AICTE by doing door-to-door survey before the project was shortlisted for the award. The project was funded by Udaipur MP Arjun Lal Meena under the Adarsh Gram Yojna. The project drew the interest of Meena as it is related to PM Narendra Modi's project of doubling the income of far-

mers by 2022. Abhay Kumar Sharma, professor and dean of agricultural department, headed the project chose the five villages which had recorded poor productivity due to shortage of water and under utilization of resources.

"A study was made on the crop pattern of these villages along with social profile of farmers. The practical aspect of the project was started during 2017 monsoon to tap the rain water by constructing small water dams at the strategic positions followed by the training sessions based on practical demonstration. The result is overwhelming as the ground water table in these villages have improved and villagers end up using the stored water for irrigation for

Rabi crops," said Sharma.

The income was double not by merely doubling the production but by axing the cost of production, creating additional income channels and reducing the dependence on the ground water for irrigation which forms the biggest cost, introducing high yielding varieties of crops and less water requiring crops.

"The soil health cards played a vital role in achieving the aim. The profile of the soil has helped us in guiding the farmers about the crops and crops combination they can grow," said PK Singh, professor soil and water engineering, which is also part of the project. The farmers were given the demonstration of growing over 100 types of crops.

सीटीएई को सांसद आदर्श ग्राम योजना में पुरस्कार

उदयपुर | एमपीयूएटी के संघटक कॉलेज ऑफ टेक्नोलॉजी एंड इंजीनियरिंग (सीटीएई) को अखिल भारतीय तकनीकी शिक्षा परिषद (एआईसीटीई) की प्रतिष्ठित राष्ट्रीय स्तर की सांसद आदर्श ग्राम योजना में पहला पुरस्कार मिला है। यह पुरस्कार हाल ही नई दिल्ली में उपराष्ट्रपति एम. वेंकैया नायडू ने सीटीएई डीन डॉ. अजय कुमार को दिया। पुरस्कार सीटीएई और एमपीयूएटी को राज्यपाल कल्याणसिंह की प्रेरणा से गोद लिए गांव छाली में किए विकास कार्यों के लिए दिया गया। कॉलेज और विवि ने स्मार्ट विलेज छाली में कराए कामों का एआईसीटीई की मूल्यांकन टीम ने अवलोकन करवाकर वीडियोग्राफी कराई थी। समारोह में एआईसीटीई के चेयरमैन डॉ. अनिल सहस्रबुद्धे और वाइस चेयरमैन डॉ. एम.पी. पूनिया भी मौजूद थे।

Activities of College for Session 2018-19

❖ University Hospital/Dispensary has been made functional located on the way of Technology Park-ECE Department at CTAE, Udaipur to provide better medical facilities to all the students residing in the university hostels as well as Day Scholar and also to MPUAT employees and residents of MPUAT. The timings of the hospital is 9.00 AM to 12.00 Noon (Morning Session) and 3.30 PM to 06.30 PM (Evening Session). Students and employees can get their Health Cards during this period. Doctor and Compounder are available except government holidays.

❖ Newly constructed building of Extension of CTAE Library and Homi Jehangir Bhabha Ph.D. Hostel, CTAE, Udaipur was inaugurated on 16th April, 2018 at 10.30 AM. On this occasion Dr. N.S. Rathore, Dy. Director General (Agril.Edu.), ICAR, New Delhi was the Chief Guest Shri Phool Singh Meena, MLA Udaipur Gramin was the Guest of Honour and Prof. Uma Shanker, Hon'ble Vice-Chancellor, MPUAT, Udaipur had presided over the function. Both the newly constructed buildings have all kinds of amenities/facilities for the students.

❖ Board of Studies (BOS) Faculty of Technology and Engineering meeting was held on 5.5.2018 in the meeting room of the Dean CTAE, Udaipur.

❖ Dr. Ajay Kumar Sharma, Professor, Department of Farm Machinery and Power Engineering, CTAE, Udaipur had taken over the charge of the Dean office, College of Technology and Engineering, MPUAT, Udaipur on 31st May, 2018.

❖ Dr. Meena Mathur, Director, SRIVAS Foundation, Jaipur had made a presentation on 14th June, 2018 for the students of B.Tech. all disciplines. She had presented about the admission procedure, scholarship, fees etc. in Australian Universities so that engineering aspirants can be benefitted.

❖ College of Technology and Engineering, MPUAT, Udaipur had organized **"CTAE Alumni Entrepreneur-Student Meet"** on 21st July, 2018 under Technical Education Quality Improvement Programme (TEQIP-III). In this one day programme, alumnus of this college, who are serving in the society as an entrepreneur have narrated their success story having interaction with the final year students of this college.

❖ The College had organized a **Workshop on "Idea Generation" by TIMES, UDAIPUR on 23.07.2018 at 9.30 AM to 11.30 AM at Placement Cell, MPUAT, Udaipur** for the students of B.Tech. Final Year (all branches). Ms. Anshu Kothari, Centre Director, TIMES, Udaipur delivered lecture in first one hour on "Important for developing points for GD & Essays" and second hour on "Public Speaking". The students had enthusiastically participated.

❖ Orientation programme was organized on 25th July, 2018 for the newly admitted students of B.Tech. First Year. On this occasion, Dr. B.P. Nandwana, Acting Dean, had briefed about the college and faculty members to the newly admitted students. They went for round of the college in the different departments so that they may be acquainted with the available facilities in the college.

❖ For the newly admitted B.Tech. First Year students Induction Programme was being conducted from 25 July to 14 August, 2018 by inviting experts from the different fields so that overall development of the students may take place from the beginning.

❖ A meeting with HODs & Class Advisors was convened on 20.08.2018 to know, how the activities of the students from time to time.

❖ Dr. K.C. Patra, Retd. Principal, IGIT, Sarang, Bhubneshwar (Odisha) visited at CTAE for performance audit under TEQIP-III on 20 & 21 August, 2018. During his visit, he had interaction with the faculty members and the students (UG, PG and Ph.D.) and also visited to the departments/ units of our college.

❖ CSU-CLSU Election 2018 was conducted on 31.08.2018 from 8.00 AM to 1.00 PM successfully and the results of CLSU was declared on 11.09.2018. Mr. Ayush Vyas as President, Mr. Vikram Singh Chouhan as General Secretary and Mr. Abhimanyu Singh Chouhan as Joint Secretary were elected.

❖ In the memory of Late Shri Bhupendra Singh Bhati a Blood Donation Camp was organized on 09.09.2018 in the Conference Hall of Department of Electrical Engineering, CTAE, Udaipur. On this occasion 80 unit blood were collected donated by the students and others for the noble cause.

❖ The Radio City was conducted for all the students of college specially B.Tech. First Year students a competition "COLLEGE -KE- SUPERSTARS" on 27th September, 2018 at 3.00 PM in front of College Library. Winners were awarded a Certificate such as College ke Superstars after the competitition. In this programme, student was shown their talent in singing, dancing, mimicry, stand-up, comedy and any other talent.

❖ College Level Student Union (CLSU) Office was inaugurated **on 3rd October, 2018 at 3.00 PM** by Shri Hemant Ghosh, Member of National Committee of ABVP and Prof. U.S. Sharma, Hon'ble Vice-Chancellor, MPUAT, Udaipur. After inaugural function, an assembly was held and addressed by the Shri Ghosh.

❖ Like every year, CTAE Alumni Society was organised Annual Meet-cum- Felicitation program on 13.10.2018 (Saturday). On this occasion, alumni who have completed 25 years (silver jubilee batch) and 15 years (Crystal jubilee batch) of dedicated service were felicitated. Prof. M.P. Poonia, Vice-Chairman, AICTE, New Delhi was the Chief Guest of the programme, Prof. U.S. Sharma, Hon'ble Vice-Chancellor, MPUAT, Udaipur was the Guest of Honour, Dr. K.N. Nag, Former Vice-Chancellor, RAU, Bikaner & Patron-in-Chief has presided over the function and Sh. Yogendra Kumar Dak, Secretary to Government , Department of Forest, GOR was also the Special Guest of the programme.

❖ A MOU between UPL Limited, Valsad and Maharana Pratap University of Agricultural and Technology, Udaipur (Rajasthan) with regard to jointly implement "Developing and Greening Hillock Adjacent to University Administrative Building" had taken place and work is in progress.

❖ A **"Launch-cum-Orientation Programme"** of ICAR - National Agriculture Higher Education Project was organized on **1st January, 2019 at 09.00 AM at Placement Cell, CTAE, MPUAT, Udaipur**. The programme was designed to orient faculty members of MPUAT about the objectives, action plan and project details of Institutional Development Project sanctioned under World Bank sponsored NAHEP Project. In this

programme, Dr. N.S. Rathore, DDG (Ag. Edu.), ICAR, New Delhi was the CHIEF GUEST and Prof. U.S. Sharma, Hon'ble Vice-Chancellor of our university was the Chair of the programme. In this one day programme faculty members from all units/colleges of MPUAT was participated.

❖ A Technology and Machinery Demonstration Mela-2019 along with the Manufactures' meet was organised by AICRP on FIM and other AICRPs jointly on 15th February 2019 in the Department of Farm Machinery and Power Engineering, College of Technology and Engineering, MPUAT, Udaipur. The event witnessed overwhelming participation from farming community, students, Government officials, manufacturers and other stake holders from this region and nearby states. In all about 1000 farmers, 500 students of the agriculture graduate programme and 30 Farm machinery manufacturers participated in the mela from Dungarpur, Banswara, Bhilwara, Chittorhgarh, Rajsmand, Sirohi, Pratapgarh , MP, Gujrat and Udaipur; besides other local visitors. In this mela an exhibition of traditional, improved and small equipment was also organised; developed by the centre and commercial equipments manufacturers for farm mechanisation in crop production operations and post harvest operations.

Kisan Mela at CTAE

❖ The World Bank Mid Term Review Mission visited at the College of Technology and Engineering on 15 Feb. 2019. World Bank Officials were Mr. Francisco Marmolejo, Mr. Satyanarayan Panda and Miss Surbhi and NPIU Official Mr. Ekant Kumar. Dr. Ajay Kumar Sharma, Dean, CTAE, Udaipur presented progress report of TEQIP activities. All the team members visited to different departments of the college to see the progress made so far and on-going activities of TEQIP-III. A meeting was also convened with Nodal Officer (Procurement) & Nodal Officer (Finance) for Institute of Rajasthan & North Eastern State respectively. The team members also have dialogue with the students and TEQIP Faculty.

World Bank Team reviewing TEQIP-III Activities

Further, at about 150 Students were deputed to attend the conferences, seminars, training programmes, Hackathon activity, academic activity in different institutes like IITs, NITs in the country. 13 students have also attended training programme running at the different organization in the country.

❖ Dr. P. Ramasundaram, National Coordinator IDP(NAHEP), ICAR, New Delhi was visited CTAE to discuss about the on-going activities and progress made so far. A meeting of all Nodal Officers IDP (NAHEP) was arranged on 18th March, 2019. He has discussed with the beneficiaries students. TEQIP faculty and HODs of the college.

S.N.	Name of student	Course	College	Class
1.	Ashmita Ranka	Agril. Engg.	CTAE	B.Tech. III Year
2.	Sarita Sukhawal	Agril. Engg.	CTAE	B.Tech. III Year
3.	Dhiraj Golani	Agril. Engg.	CTAE	B.Tech. II Year
4.	Nikita Akawat	Agril. Engg.	CTAE	B.Tech. III Year
5.	Chhavi Shaktawat	Civil Engg.	CTAE	B.Tech. III Year
6.	Jayesh Kothari	Civil Engg.	CTAE	B.Tech. III Year

❖ One Day Awareness programme on "Better Institutional Work Environment & Competing Values for Optimal Performance of Employees" was held on 27th April, 2019 at CTAE, Udaipur under IDP (NAHEP). About 180 faculty and staff members of different colleges of MPUAT have participated in the programme. The basic aim of programme was to provide insights in scope and working mechanism of world class universities to orient faculty and staff members about leadership motivation skills, to promote coordination and optimization of human relations and to motivate employees and students for self-confidence, acceptable committed work and happy life. On this occasion, Dr. N.S. Rathore, DDG (Agril. Edu.) & National Director IDP (NAHEP), ICAR, New Delhi was the Chief Guest and delivered a special address on "Preparing for World Class Universities : The Road to the Institution of Eminence". Prof. J.P. Sharma, Hon'ble Vice-Chancellor, MPUAT, Udaipur was the Chairman of the programme.

Department of Basic Science

About the Department

The Department of Basic Science is one of the supporting departments of the College of Technology and Engineering (CTAE), Udaipur. The Department offers various courses in Physics, Chemistry, Mathematics and English at the undergraduate level to the engineering students of the college. It also offers a course in Communication Skills and Technical Writing to the 1st Year postgraduate students. It aims to build a strong foundation in the principles and phenomena of Physics, Chemistry and Mathematics, besides striving to hone their everyday communication skills, thereby facilitating a smooth transition into their respective fields of specialization.

The Department consists of well-qualified and experienced teaching faculty supported by proficient technical staff. It is running successfully in the First Year Instructional Block. This block is a niche where the inquisitive minds can develop by interacting with each other, leading to a fruitful symbiosis. It stands out as no other college in the country has a separate block for imparting first year education. Its rotund structure, sound aeration, luminosity and aesthetic beauty make it distinct in the campus. The block exhaustively caters to the needs of the first year students' classes at both theory and practical level. The block comprises of four lecture halls equipped with projector systems with an aim to do away with conventional teaching methods. The tier system of the lecture hall, providing equal access and eye contact, makes the teaching-learning process a delight. The block consists of essential units of Basic Science namely, Physics, Chemistry, Mathematics and English, along with rooms for the faculty. It is supported with spacious and well-equipped laboratories for all the subjects. The department has been consistently growing over the years.

Prominent activities and initiatives in 2018-2019:

❖ TEQIP-III-Sponsored Induction Program: A TEQIP-III-sponsored induction program was organized for the 1st Year B.Tech students of all branches from 26th July, 2018 to 14th August, 2018. The 21-days long program included sessions on English Language, Soft Skills, Physics, Chemistry, Mathematics, Computer Literacy, Human Values, Worldview and Motivation. Yoga, exercise, games, sports, tree plantation, cleanliness drive, city visits, creative and hobby classes were also there. Besides, students were acquainted with the college and respective departments through presentations and visits.

❖ Group Discussion: A group discussion was conducted on the relevant issue of Bullying in Colleges for the 1st Year students. Some of the sub-topics discussed were: what includes bullying, how to identify bullying, why bullying happens, how and why it must be prevented, etc.

❖ IDP-Sponsored Expert Lecture and PPT Presentation Competition: An expert lecture by Prof. P.K. Dashora, Ex-Vice-Chancellor, Kota University was organized on 2nd February, 2019, in collaboration with

Creative and Fine Arts Club. It was presided over by Prof. Ajay Kumar Sharma, Dean, CTAE. The theme was Creativity in Education, and Prof. Dashora, with his years of experience, inspired the students to excel in life by broadening their horizons and thinking out-of-the-box solutions to problems. It was an interactive session towards the end of which, he also gave the students tips and tricks that would help them in their career.

Tree Plantation

Workshop

It was followed by a PowerPoint Presentation Competition for First Year Students. 22 students were shortlisted for this round and presented their perspectives on Creativity in Education. Every participant was given 5 minutes for the presentation, in which they showcased a plethora of new ideas, using audio-visual aids. Three winners were chosen on the basis of their content and delivery of the presentation.

The events were successfully organized by Dr. A.K. Chittora and Ms. Nitika Gulati, coordinator and sub-coordinator of the club respectively.

City Tour

Department of Civil Engineering

The department is offering B-Tech. degree program since 2007-08 with intake capacity of 40 students & M. Tech (Structural Engineering) since 2012-13 with intake capacity of 8 students & PhD (Civil Engineering) since 2018-19 with intake capacity of 4 students.

It also offers core courses to other branches of Engineering like Mechanical, Electrical, Mining, Agriculture, Electronics & Communication and Computer science & Engineering etc. It also offers various courses related to civil Engineering and support research project work of PG students in Agricultural Engineering. Some of the courses, offered by department to agricultural Engineering graduates are surveying, Soil Mechanics, Fluid Mechanics, Structural Design, Estimating and Costing, Engineering Drawing, Engineering Mechanics, Building Construction and Strength of material etc. Some of these courses are offered to other branches of Engineering. Experienced qualified and research oriented faculty caters the need of present modern technology in the field of Civil Engineering.

Some important instruments available in various laboratories are Total Station, DGPS, Micro-Optic Theodolite, Automatic Level Recorder, Tri-Axial Shear Apparatus, Three Gang Consolidometer, Digital Universal Testing Machine-100 Tonne Capacity, UTM-20 Tonne Capacity, Compressive Strength Machine, and Digital Compression Testing Machine, BOD incubator, COD incubator.

Department has also procured various apparatus in Durability lab such as Automatic CTM (300 T), Fatigue Testing Machine, Ultrasonic pulse velocity apparatus, Carbonation Chamber, Rapid Chloride Penetration Apparatus, Abrasion Testing Machine & Water Permeability Apparatus.

The department is also providing consultancy and extension services to state govt. department, public sector organization, private entrepreneurs and others, which include testing of cement, concrete, soil and steel, thereby generating good amount of revenue for the university.

Overview of activities in 2018-19:

1. Special lecture was delivered by Adjunct Professor Kezar Ali Shah on "Construction and Design of Municipal Waste fill Dam".

2. Special lecture was delivered on "Durability of Concrete Structure" by Dr. Sandeep Choudhary, Professor, IIT Indore.

3. 14 Students qualified GATE 2018 with good score.

4. Infrastructure improved & procured various advanced instruments.

5. AICTE MODROB Project was started on "Modernization of Survey Lab".

6. Visit of students at Railway Training School.

7. Visit of students at the construction site of "Urban Square Mall".

ONGOING PROJECTS :

S.No.	Modrob Project	Funding agencies	Start Year, Duration	PI	Amount (in Rs.)
1	Modernization of Survey Lab	AICTE	2018 – 20	Dr. B. S. Singvi	7.5 Lac
2	Utilization of plastic waste in concrete & Paver blocks	DST, New Delhi	2016-19	Dr. Trilok Gupta	25.30 Lac
3	Development of ecofriendly Paver blocks using waste products	DST, Rajasthan	2018-21	Dr. Trilok Gupta	8.28 Lac

SEMINAR CONDUCTED IN DEPARTMENT :

S. NO.	PROFESSIONAL PERSON	TOPIC
1.	Er. Kezar Ali Shah , General Manager, Wonder Cement	Construction of Railway Siding In Industry
2.	Dr. Sandeep Choudhary, Professor, IIT Indore.	Durability of Concrete Structure
3.	Er. Kezar Ali Shah, General Manager, Wonder Cement	Green Building Design
4.	Dr. Mahesh Jat, Professor, MNIT Jaipur	Application of Remote Sensing in Water Resource Engineering

WORKSHOPS ATTENDED AT OTHER INSTITUTES :

S.NO.	NAME OF INSTITUTE	EVENT	NO. OF STUDENTS
1.	MNIT, Jaipur 25-26 March 2019	Conference on Advances in Building Road Materials and Construction Engineering	10
2.	IIT, Mandi 12-14 April 2019	Workshop on Bridge Design (viaduct) and AUTO CAD (CaDx)	5
3.	NIT, Durgapur 25-27 March 2019	Workshop Recent trends on Remediation of Contaminated Water Bodies and Soil	4

DEPARTMENTAL LAB FACILITIES :

The department has ten well equipped laboratories which are as follows:

- Survey Lab
- Soil Lab
- Concrete Lab
- Computational Lab
- Transportation Lab

- Durability and NDT Lab
- Strength of materials Lab
- Applied Mechanics Lab
- Model Lab
- PHE Lab

CONCRETE LAB :

SURVEY LAB :

Total Station

DGPS

DURABILITY AND NDT LAB

Fatigue Testing Machine

Multifunctional Control Frame

MODEL LAB :

Students Working in Labs

ACHIEVEMENTS :

❖   9 students were qualified the GATE exam with good score.

❖   2 students selected to Attend training at Asian Institute of Technology. Bangkok Thailand for training of two weeks on UNBUNDLING THE ENGINEERING TO ACHIEVE SUSTAINABLE DEVELOPMENT GOAL (Ensure availability and sustainable management of water and sanitation for all).

A visit was planned for III & final year students at "Zonal Railway Training Institute, Udaipur" to give them practical and working principles of North Western Railway Zone. Er. Pramod Shrimali (Railway Training Officer) explained all the models available at the lab. The working train model also shown to students with monitoring signals, brakes, crossings, points & switches.

Students Visiting "Zonal Railway Training Institute, Udaipur"

Department of Computer Science and Engineering

The Department aims at imparting quality education and strives to quench the thirst for knowledge among students. The Department offers B.Tech. (CSE), B.Tech (IT), M.Tech. (CSE) and Ph.D (CSE) programs. The Department lays emphasis on theoretical and practical aspects of subjects taught viz. Computer Technologies, Distributed Computing, Information Security, High Speed Networks, Wireless and Mobile Networks, Programming Languages, networking and database management, Software engineering and several other subjects relevant to the domain of computer engineering & information technology. Moreover updating of syllabus is carried out at regularly to keep in pace with the recent technological developments. The classes are conducted by procuring latest technologies viz. smart classes and multimedia .The department has developed a well equipped seminar hall with the state of art computation and multimedia facility. The B.Tech. Curriculum also includes industrial summer training which enable students to get acquainted with work culture of the industries and in turn help in making themselves ready for industry. The alumini of the Department is working in esteemed organizations such as TCS, Infosys, AppPerfect, Accenture, Cognizant, Emc2, Ericsson, Hexaware Technologies, IBM, L&T, Wipro, Tech Mahindra etc.

To encourage research among the students of the department, many international & national Conferences, Workshops are conducted in the Department in association with the professional bodies such as IEEE, CSI & IEI.

A new PG Block is inaugurated on 14 Oct, 2017 by Shri Gulab Chand Kataria, Home Minister of Rajasthan. The PG block is well equipped and dedicated for PG students for their research work.

Vision

❖ To contribute to India and the World through excellence in the Domain of Computer Science and Engineering education and research and to serve as a valuable resource for Computer Science and Engineering based Industry and society at-large.

Mission

❖ Committed to excellence, the department seeks to impart knowledge to develop latest technological skills with value based education among students to facilitate their development as successful and competent professionals for the nation.

❖ Promote excellence, foster high standards and orient the education towards future needs and opportunities through strong Academia, Industry, and Stakeholder linkages.

❖ Strengthen the curricula as per the current needs of the industry and academia to promote research and development in frontier areas of Computer Science & Engineering.

❖ Provide opportunities for research, continuing education, faculty up-gradation and development of human resources in new and cutting edge technologies, especially through national and international collaboration.

❖ Strengthen non-formal training to promote innovation among students and equip them to be successful future entrepreneurs.

Some of the department academic highlights:

❖ Final year 2018-19 Placement statistics : 13 CSE students placed & 8 Information Technology students placed

❖ Training on Internet of Things was organized at Department of Computer Science and Engineering, CTAE, Udaipur from 12-06-2018 to 14-06-2018.

❖ "Workshop on Cloud Computing" was organized at Department of Computer Science and Engineering during 26th and 27th October, 2018 in association with Malaviya National Institute of Technology, Jaipur and sponsored by TEQIP-III.

❖ Organized Spoken Tutorial training program in 5 courses of Department of CSE and Department of IT as Faculty coordinator. The Spoken Tutorial training program is offered by IIT Bombay under MHRD, NMEICT initiative by government of India

❖ Workshop on Big Data: Security and Privacy Issues was organized at Department of Computer Science and Engineering, CTAE, Udaipur during February 18-22, 2019 in association with Malaviya National Institute of Technology, Jaipur and sponsored by TEQIP-III.

❖ Hackathon - March 2019 Teams from CSE and IT: Various teams are participating to present their idea.

❖ Smart India Hackathon Team from CSE and IT

Team members:

1. Rachit Shrivastava (Third yr IT), Komal Popli (Third yr CSE), Megha Khajuria (Third yr CSE), Rajni Harsha (Third yr CSE), Naeem Akhtar, Vibhor Soni

   Problem statement: Water borne diseases detection in particular location.

   Proposal: An android Application in which user can add the location where he / she get affected by the disease and then the app will ask for feedback related to the disease. User will be ask about the name of disease, symptoms of disease, immediate effects of disease on health. User can also add location of possible areas along with pictures which could be the sources of possible waterborne diseases.

2. Naman Sisodia (Final yr CSE), Ayaz Alam (Third yr IT), Kanika Ranka (Third yr IT), Vaibhavi Golechha (Third yr IT)

   Problem statement: Water The idea is to help cash crop farmers select the right time to harvest their produce to avoid crop loss various diseases and lack of rain.

   Proposal: A system consisting of a web and a mobile application based on neural networks that will

monetize the farmer field and send text message as assistance (for prototype considering Sugarcane crops (Saccharum officinarum) which is mostly cultivated cash crop of India and taking Uttar Pradesh as our case study)

Brief Highlights of Workshop on Cloud Computing

"Workshop on Cloud Computing" was organized at Department of Computer Science and Engineering during 26th and 27th October, 2018 in association with Malaviya National Institute of Technology, Jaipur and sponsored by TEQIP-III. Workshop received an overwhelming response from the students. Overall 50 students had attended the workshop including, B. Tech. final year, third year, second year as well as PhD first year students.

On day 1, sessions related to basic of cloud computing and hypervisor layer security were conducted by Dr. Bhavesh Borisaniya, Assistant Professor, Shantilal Shah Engineering College, Bhavnagar, Gujarat. He covered topics such as, virtualization techniques and tools, cloud computing models and tools, and malware detection: system security in cloud.

Cloud Computing Workshop

On day 2 of the workshop, sessions related to network security in cloud were conducted by Dr. Chirag Modi, Assistant Professor, National Institute of Technology Goa. He covered topics such as, layered security in cloud computing, cloud network security and intrusion detection, tools for layered security in cloud computing. All the sessions were very interactive and students get to know about the tools used for security in cloud computing.

Workshop Session

Cloud Computing Workshop

Brief Highlights of Workshop on Big Data: Security and Privacy Issues : Training on Internet of Things was organized at Department of Computer Science and Engineering, CTAE, Udaipur from 12-06-2018 to 14-06-2018.The objective of the training is to educate and train the faculty and researchers regarding IOT. Speaker (Mr. Ankit Mohan) provided valuable information on emerging applications and market trends in the field of IOT.

Lecture Session

On day 1, he gave introduction to Internet of things and gave the training on Arduino Plateform, Arduino programming and interface of sensor.

On day 2, demonstration on Raspberry Pi and sensor was provided. On day 3, he introduces us Zigbee which is a popular wireless communication protocol standard ideal for sensor based networks. This course provides an exposure to Zigbee standard and teaches how to design a product based on Zigbee.

IOT TRAINING

Brief Highlights on Internet of Things Training

Workshop on Big Data: Security and Privacy Issues was organized at Department of Computer Science and Engineering, CTAE, Udaipur during February 18-22, 2019 in association with Malaviya National Institute of Technology, Jaipur and sponsored by TEQIP-III. Workshop received a good response from the faculties and students. Total 30 participants from various institutes had registered themselves for the workshop.

Day 1 of the workshop was started with registration process. Sessions related to Big Data and Hadoop were conducted by Mrs. Kalpana Jain and Mr. Brijesh Mehta from CTAE, Udaipur. Head of the department, Prof. Naveen Choudhary had welcomed all our experts Dr. Bhavesh Borisaniya, Dr. Ruchika Gupta, Dr. Nishant Doshi and Dr. Chirag Modi. Prof. Ajay Kumar Sharma had also remained present to motivate the participant and gave an excellent speech on "Importance of Information Technology".

Sessions related to Apache Spark and Privacy in Location based Services were conducted by Dr. Bhavesh Borisaniya, Assistant Prifessor, Shantilal Shah Engineering College, Bhavnagar and Dr. Ruchika Gupta, sessions related to cognitive radio network, Apache Pig and Apache Hive were conducted by Mr. Brijesh Mehta, Ms. Diksha Goyal and Ms. Rubina Banu Patel.

On last day of the workshop, sessions related to attribute based encryption and data science were conducted by Dr. Nishant Doshi, Assistant Professor, Pandit Dindayal Petroleum University, Gandhinagar and Dr. Chirag Modi, Assistant Professor, National Institute of Technology Goa.

Workshop on Big Data: Security and Privacy Issues

Department of Electrical Engineering

The department of electrical engineering was established in the year 1957 offering diploma in electrical stream. Under Graduate program was started in 1996 with discontinuation of diploma program. The Department of Electrical Engineering is one of the well established departments in the College of Technology and Engineering (C.T.A.E.), and has a distinguished faculty, all holding PhD/M.Tech. degree from renowned institutes in India.

The Department offers programmes at undergraduate and postgraduate levels with the aim of providing a sound background in the areas of Electrical Engineering.

Vision

❖ To provide electrical engineers of highest caliber who would engage in research, design and development to help building the nation towards self reliance in her technological need.

❖ To become a centre of excellence in education, research and technological service to the nation for its need in design and manufacturing independence.

Mission

❖ To promote academic growth in the discipline of electrical engineering by offering state-of-the-art undergraduate, postgraduate and doctoral programmes.

❖ To arm the graduates with latest technologies and knowledge of applying them for finding technically feasible and economically viable solutions of the problems of manufacturing sector and to make them globally competitive.

❖ To create an ambience of academic excellence in which new ideas, research and entrepreneurship flourish and from which the leaders and innovators of tomorrow emerge.

Facilities

Along with sound theoretical knowledge a thorough knowledge-how of practical problems encountered in the real world. The department has advanced labs equipped with most modern machineries and instruments that are required to up bring a sound engineer.

The department has well-equipped laboratories namely electrical machine lab, electrical measurement lab, electrical work shop, air-conditioned computer lab, microprocessor lab, control system lab, power system lab, power electronics lab and basic electrical lab etc. as per requirement of the university syllabus.

The special feature of the labs being equipped with

❖ Robotic system for industrial process simulation.

❖ PLC system

- ❖ Digital power line supervisor
- ❖ Data logger
- ❖ Industrial process fault finding trainer(imported from FEEDBACK , UK)
- ❖ MATLAB,visual simulation
- ❖ Energy auditor.

The Department is well equipped with a number of PCs and workstations hosting several software packages, and linked through a local area network. Internet services are available to all students and faculty.

The Department has over 10 well equipped laboratories and operates its own library, offering facilities in all areas of Electrical Engineering.

Students Working in Laboratories

Achievement and Activities at glance in 2018-19:

1. Organised ICAR sponsored winter school on "Innovation and Emerging Dimensions in Educational Technology for the Development of Agriculture Education" from 2-22 January, 2019.

2. Organised IDP/NAHEP, ICAR sponsored two workshops on presentation skill through photography and graphical software with mobile photography in March 2019.

3. Organised two three days Entrepreneurship Awareness camp on 8-10 March and 15-17 march, 2019.

4. Organised Technical Week from 8 to 15 September, 2018 under the banner of Student chapter, Institute of Engineers, India

5. Conducted technical visit of IEVO and Mewar Hitech Engineering in March 2019.

6. Organise two programs namely "Solar PV Electrician" and "Solar PV Technician" sponsored by AICTE under PMKVY-IT.

7. Fifteen students of Electrical Engineering Department have qualified the GATE 2019.

8. Organised IDP/NAHEP, ICAR sponsored short term course on "MATLAB Application in Engineering" from 28 January to 2 February, 2019.

Department of Electronics and Communication Engineering

1.   Student Activities

❖   Organized a Bootcamp on Introduction to IoT and ESP8266N Microcontroller under Electronics and Robotics Club by Dr. Sunil Joshi (Coordinator), Mr. Deep Manwar & Mr Vishwapriya (Sub-Coordinator), Ashish, Bhavesh & Parth (Student coordinator) with approximately 50 participants on 11th February, 2019.

❖   III year B.Tech student, Aashish Khandelwal attended summer training at MNIT, Jaipur and II year B.Tech student, Sanjay Shekhawat attended summer training at IIT Bombay during June, 2018.

❖   II year B.Tech student, Vishwajeet Singh Jhala won Gold medal for camp Senior and silver medal for Best Cadet, Guard of Honour in NCC; CATC Camp.

❖   Final year student, Riya Murdia secured second position in English debate competition held in college in 2018 and secured second position in volleyball held in CDFST, 2019.Students have represented college in various technical events like Smart India Hackathon, IICDC 2018, etc.

❖   Students have actively taken part in workshops, seminars, conferences, etc held at different places in country.

❖   Students have secured Top ranks in CAT, GATE, etc. exams and took admission into Top institutes of country and abroad.

Bootcamp

2.   Conferences, Workshop, Seminars, Summer School, Orientation Courses etc. organized:

S. No.	Title of Workshop/Seminar	Organizing Secretary and Coordinators	Name of Experts	Held on	Beneficiary
1.	Emerging & Evolving Trends in Information & Communication Technology : ICT	Dr. Sunil Joshi, Organizing Secretary Dr. Navneet Agrawal, Coordinator Mr. Himanshu Mohan, Coordinator	Prof. H.M. Gupta, IIT Delhi , Prof. M.M. Tripathi, DTU, Delhi Prof. S.K. Dhurandher, NSIT, Delhi	$26^{th} - 27^{th}$ October, 2018	Approximately 90 students from different institutions.
2.	Faculty Development Program on Mobile and Wireless Communication	Dr. Navneet Agrawal, Remote Center Coordinator	Prof. Ranjan Bose (IIIT Delhi) , Prof. Ratnajit Bhattacharjee (IIT Guwahati), Dr. V.V. Mani (NIT Warangal)	3-7 Dec 2018	33 participants (Faculty Members and PhD students) from different institutions were benefitted.
3.	Faculty Development Program on DSP and Sensors	Dr. Navneet Agrawal, Remote Center Coordinator	Prof. T. Kishore Kumar (NIT Warangal) , Prof. L. Bhargava (MNIT Jaipur), Dr. Gaurav Trivedi (IIT Guwahati)	10-14 Dec 2018	21 participants (Faculty Members and PhD students) from different institutions were benefitted.
4.	Faculty Development Program on Artificial Intelligence and Machine Learning	Dr. Navneet Agrawal, Remote Center Coordinator	Dr. Bala Subramanian (IIT Roorkee), Dr. Atul Gupta (IIITDM Jabalpur), Dr. Prithwijit Guha (IIT Guwahati).	17-21 Dec 2018	58 participants (Faculty Members and PhD students) from different institutions were benefitted.

Seminar on Emerging & Evolving Trends in Information & Communication Technology

FDP on Mobile and Wireless Communication

Seminar/Conference/Workshop/Summer School visit/Faculty Achievements etc.

❖ Expert Talk by Prof Sunil Joshi on "Microwave Remote Sensing Techniques & Applications' in STTP on Natural Resource Management 14-18, Feb 2019, held under IDP, in Department of Soil & Water Engineering, College of Technology & Engineering.

❖ Prof Sunil Joshi was Guest of Honour in inauguration function of IDP sponsored FDP on MATLAB & Its Applications' during Jan-Feb 2019, in Department of Electrical Engineering, CTAE, Udaipur.

❖ Expert Talk by Prof Sunil Joshi on "Making of Engineering Projects & Generation of Financial Assistance' in STTP, Feb 2019, held under IDP, in Department of Mechanical Engineering, College of Technology & Engineering, MPUAT, Udaipur.

❖ Expert Talk by Prof Sunil Joshi on 'Sensor Technology & IoT in Agriculture', January 2019, during ICAR Sponsored FDP held in Department Electrical Engineering, College of Technology & Engineering, MPUAT, Udaipur.

❖ Dr. Navneet Agarwal received the Global Publon Top Peer Review Award, U.K.

❖ Dr. Navneet Agarwal received a certificate of Reviewing award from SCI Indexed journal "Optik" in Dec, 2018

❖ Dr. Navneet Agarwal received a certificate of Appreciation on 8 June 2018 from IEI, Kolkata, India for valuable services rendered.

❖ Dr. Navneet Agarwal received a Certificate of Appreciation on Engineer's Day (15.09.2018) from IEI, ULC, Udaipur.

❖ Dr. Sunil Joshi, Dr. Navneet Agarwal and Mr. Himanshu Mohan from the department participated in TEQIP Summer Training Programme on Active Learning at IIT Bombay from 4th to 8th June, 2018.

❖ Mr. Deep Manwar and Mr. Himanshu Mohan received a Token of appreciation from Texas Instruments for IICDC 2018 challenge attended.

❖ Ms. Prerna Dhull participated in a one month Faculty Exchange Program at IIT Bombay, conducted by MHRD-TEQIP-KITE during June, 2018 to promote research exchange between institutions.

❖ Mr. Vishwapriya participated in a Faculty development programme for student induction organized by AICTE during 12-14 July, 2018.

❖ Mr. Deep Manwar participated in a short course on 'Modeling and Simulation of Nano Transistor' 21st Jan.to 25th Jan. 2019 at IIT, Kanpur.

❖ Mr. Deep Manwar and Ms. Prerna Dhull participated in a Workshop on 'Big Data: Security and Privacy Issues', 18th Feb to 23rd Feb, 2019 at Department of Computer Science and Engineering, CTAE, Udaipur.

❖ Mr. Vishwapriya participated in a Faculty Development Programme on 'Roboitics & 3D Printing' during 25 February, 2019 to 1 March, 2019 at Center for Electronic Governance, Jaipur

Projects Sanctioned

S. No.	Name of project	Funding Agency	PI/CO-PI	Team Members
1.	PNEUMO-Electric Vehicle on single Wheel	New-GEN	Dr. Sunil Joshi	Mr. Yogesh Sharma Mr. Abhishek Lohar
2.	Design of an IoT based real time soil moisture & fertilizer monitoring prototype	New-GEN	Dr. Sunil Joshi	Ms. Priyanka Patidar Ms. Diksha Paliwal
3.	Design of a multi -sensor cloud IoMT based Secured Health Monitoring System for coma patient	New-GEN	Dr. Sunil Joshi	Ms. Surbhi Joshi Ms. Shiwani Mahawar
4.	R & D project on "Design of 256 channels sample rate converter for accelerated 3T - MRI: Shifting the paradigm in Health sector" of 6.786 Lacs	DST, Jaipur	Dr. Navneet Agrawal	Faculties R&D Project
5.	Green House monitoring and Controlling using Android mobile Applications	DST, Jaipur	Dr. Navneet Agrawal	Mr. ShreeRam Saini
6.	Dissipated heat -source of sustainable electricity	DST, Jaipur	Dr. Navneet Agrawal	Ms. Akansha & Juliet Johny
7.	Fruit Harvesting Laser	New-GEN	Dr. Navneet Agrawal	Ms. Abha Gupta Ms. Charul Lalvani
8.	Energy efficient street lamp post	New-GEN	Dr. Navneet Agrawal	Ms. Anusha Mundra Ms. Krati Maheshwari
9.	Nitrate Detector	New-GEN	Mr. Himanshu Mohan	Ms. Riya Murdia Mr. Narayan Lal Gurgar Ms. Rishika Mehta Mr. Sajat Badiwal
10.	Blind Stick - Smart stick with audio feedback and SOS button	New-GEN	Mr. Deep Manwar	Mr. Subham Suthar Mr. Vishal Methi
11.	MOBET	New-GEN	Ms. Prerna Dhull	Mr. Ashish Khandelwal Mr. Bhavesh Saini Ms. Riya Sankhla
12.	Soil Salinity and pH Detector	New-GEN	Mr. Vishwapriya	Mr. Rahul Laxkar

Skill Development courses

❖ Dr. Navneet Agarwal is coordinating Two Skill Development courses in 'Telecom Sector on Optical Fibre Splicer' and 'Telecom Sector on Mobile and Hardware Repairing' under Pradhan Mantri Kaushal Vikas Yogana for Technical Institutions (PMKVY-TI) from Nov 2018 to Oct 2019.

❖ Two other skill development courses under PMKVY-TI on i) Optical Fibre Technicians ii) RF Site Surveyer, started from June 2018 has been completed in December 2018 under the coordinator-ship of Dr. Navneet Agarwal.

Visit of Dignitaries to Unit with Date and Purpose

World Bank Officials Mr. Francisco Marmolejo, Mr. Satyanarayan Panda and Ms. Surbhi visited the department on 15th February, 2019 and interacted with the Faculties and the students about the various facilities developed under TEQIP-III.

Major equipments procured

❖ Anechoic Chambers for measuring radiation patterns of antennas, or radar cross-section measurements.

❖ Matlab 2018 to improve the research qualities in fields of communication, Signal processing, Image processing, Biomedical electronics etc.

❖ Texas Instruments DSP Development board for more interactive Audio and Video processing related student projects.

❖ Advance IoT Trainer Kit for the testing facility for IOT based research experiments.

Inaugurations

? Dr. U. S. Sharma, HVC, inaugurated 30 KW Solar Power System in the Department of Electronics and Communication on 2nd March 2019.

Department of Farm Machinery and Power Engineering

Department offers UG, PG and Ph.D Programmes and accredited by AICTE and NBA. It has well equipped labs with good instrumentation facilities, dedicated faculty, has recognition at National and International level with good academic and research environments. Department is promoting innovative capabilities of students and assist to get financial support from other sources. Organize seminars and special lectures for UG and PG students and no time bar for the research scholars. Department has a Farm Machinery Testing Centre under RKVY and AICRPS on UAE, ESA and FIM Two Ph.D. projects entitled Seed cum Manure Drill by Mr. Sunil Rathode and Automatic Vegetable Transplanter by Mr. Abhijeet is funded by Department of Scientific and Industrial Research, New Delhi. Four Ph.D thesis were completed in this year.

Students of Agricultural Engineering have created history by receiving numbers of National and International awards. Mr. Narayan Lal Gujar, students of III year B. Tech. (Ag.), Mr. Shashi Pratap Singh III year B. Tech. (Ag.) and Mr. Ankit Jain, II Yr. BE (Ag) has developed eco-friendly water retention natural polymer which has potential to absorb water multiple times of its own mass and releases slowly as per requirement of the plant. The work done by Mr. Gujar and his team has been appreciated at many places and forums such as they secured 1st position in Rajasthan Education Festival, and appreciated by Hon'ble Chief Minister of Rajasthan Mrs. Vasundhra Raje, Hon'ble MHRD Minister Sh. Prakash Javdekar. They are also i3 2017 silver Award Winner, as most promising innovator, i3 KLU award, i3 UNIDO ITPO Bahrain Award, Jan Jagran Event and their work was selected for national level. They also secured second runner-up in event organised by Tie, Rajasthan. Their work was also appreciated at Techfest 2017, Elixir winner held at IIT Bombay and recently Gandhian Young Technical Innovation Awarded at President House, New Delhi. He has also been invited by Government of Japan under start up accelerator programme. They have started their own company and became a Job provider instead of job seeker.

Equipments/facilities developed in the session 2018-19

Soil Compaction Meter

Post Hole Digger

Forage Harvester

Tractor Data Acquisition for field power and energy demand mapping

NaCl Aerosol Generator

Hot wire anemometer

Skill Development training Programme On Tractor Operator

A 25 days residential skill development training programme on "Tractor Operator" was conducted from 18th February 2019 to 14th March 2019 at Department of Farm Machinery and Power Engineering, CTAE. The training was sponsored by Agriculture Skill Council of India (ASIC). Total 20 rural youth were participated in which three were female participants. The training was focused on basic introduction of tractor, repair and maintenance of tractor, field operation of tractor and introduction to different agricultural machinery. Assessment of the training was one by conducting written, oral and practical examination by the team of ASIC.

Student Research Project Sanctioned

S No.	Name of the Student	Name of Major Advisor	Title of Project	Amount Sanctioned	Funding Agency
1.	Mr. Khadatkar, Abhijeet	Dr. S M Mathur	Rotating finger with push -type mechanism for automatic vegetable transplanter for plug type seedlings	4.0 Lacks	DSIR, New Delhi
2.	Mr. Sunil Rathode	Dr. A K Mehta	Development of Seed cum Manure Drill for Row Crop Cultivation	2.5 Lacks	DSIR, New Delhi
3.	Mr. D J Shriniwas	Dr. S M Mathur	Development and Evaluation of Portable Low Cost Compound Cattle Feed Pelleting Machine	2.5 Lacks	New Gen IEDC
4.	Mr. J Shriniwas	Er S S Meena	Development and performance Evaluation of Walking Type Multi-Crop Power Weeded	2.5 Lacks	New Gen IEDC
5.	Mr. Badgirie Balasaheb	Dr. S M Mathur	Design and Development of Centrifugal Blower for Aero Blast Sprayer in High Dnesity Mango Orchard	ASSPE, Mumbai	
6.	Mr. S S Vyas	Dr. S M Mathur	Development and Performance evaluation of Tractor Operated Cotton Stalk Shredder-mixer	Anjel Enterprise, Rajkot, Gujrat	
7.	Mr. Nitesh Verma	Dr. S M Mathur	Development and Performance Evaluation of a Raised bed Mulching and Drip laying Machine with two row transplanting attachment	Makwel Industries, Unjja (Gujrat)	
8.	Mr. Ravi Kiran Rathore	Dr. S M Mathur	Mechanism for Fenugreek Threshing		
9.	Mr. Narayan Lal Gujar, mr. Ankit jain and Shashi Pratap Singh	Dr. S M Mathur	Eco Friendly Polymer	2.5 Lacks	New Gen IEDC

Academic Achievement

Nos. of Ph.D. Awarded in 2018   :   03

Nos. of. M.Tech Awarded in 2018 :   08

List of the students got ICAR-JRF/SRF Scholarships in 2018	
SI No.	Name of the student
1.	J Shriniwas, SRF Scholarship

Enterprises / start-ups promoted

S.No.	Name of Enterprises / startup	Year of collaboration	Highlights
1	Eco Friendly Polymer	Student start-up/Entrepreneurship promoted from university	Mr. Narayan Lal Gujar, Ankit Jain and Shashi Pratap Singh, student of III Yr. Agril Engineering ; Promoted as Start-up/Enterprises and has started there own Enterprise Eco Friendly Polymer supported by NewGen IEDC, DST, New Delhi www.efpolymer.com

List of the students got admission in Ph.D. in 2018 through ICAR entrance exam	
SI No.	Name of the student
1.	J Shriniwas, SRF Scholarship

SI No.	Number of students got ARS in the discipline offered by the university in 2018	
List of the students got ARS selections		
SI No.	Name of the student	ARS Discipline
1	Dr. D J Shriniwa	FMPE
2	Ms Vinita Kashyap	FMPE

SI No.	Total Number of Students qualified NET in the disciplines of agriculture and allied sciences	
List of the students qualified NET		
SI No.	Name of the student	Discipline
1.	Ms Vinita Kashyap	Agril. Engineering

Patent Granted

Patent No. 301687, Date of Grant: 28/09/2018 Granted to Dr. Shailendra Mohan Mathur, CTAE as an Inventor Plasma Expressor Semiautomatic top and Bottom

List of staff who attended superannuation with photo (there will be separate section)

Dignitaries visit the College/department

- ❖ Dr. Gajendra Singh, Ex DDG Engg, ICAR, New Delhi
- ❖ Dr. N S Rathore, DDG Education, ICAR, New Delhi
- ❖ Dr, C R Mehta , Project Coordinator, Farm Implement and Machinery, CIAE, Bhopal
- ❖ Dr. Maharani Din, Project Coordinator, Utilzation of Animal Energy with Enhanced System Efficiency , CIAE, Bhopal
- ❖ Dr. K K Singh, ADG, Engg., ICAR, New Delhi

Various Dignitaries at Kisan Mela

Department of Mechanical Engineering

The session 2018-19 proved to be a year of development and academic endeavours under the guidance of Dean Dr Ajay Kumar Sharma. Slogan competition was conducted by ICFAI on the occasion of Teacher's Day. STTP, Workshop, FDP were organized for the development of staff and students under the twining activities with TEQIP mentor institute MNIT, Jaipur. World Bank team visited the department for mid term evaluation of TEQIP activities and appreciated the work carried out by department.. Many industrial visits and expert lectures were organized during the year to enhance the practical knowledge of students. The year started with zeal and enthusiasm to maintain the academic standards with enhanced contributions by faculty and students.

Seminar/ conference/workshop/summer school/QRT visit etc.

❖ Induction program of I BTech

❖ Teacher's Day celebration in department on 5th Sept., 2018 by Prof MA Saloda

❖ Slogan competition on the occasion of Teacher's Day by ICFAI in department on 15th Sept., 2018 by Prof MA Saloda

❖ Two days workshop on Computational and Research Techniques in Engineering on 3rd and 4th Oct., 2018 organized by MED,CTAE and MNIT, Jaipur under twining activity of TEQIP III by Dr S Jindal

❖ Expert Lecture on molding from Secure Meter Pvt Ltd. Udaipur on 26.10.2018

❖ Final year students visit of Saras Dairy, Udaipur under supervision of Dr Chitranjan

❖ STC on Data Analytics for Engineers from 10.12.2018 to 14.12.2018 organized by MNIT, Jaipur and MED,CTAE, Udaipur under twining activity of TEQIP III by Dr BL Salvi

❖ STTP on Enhancing Research and Soft Skills for Engineers at MED, CTAE, from 11.02.2019 to 15.02.2019 under twining activity of TEQIP III by Dr Chitranjan

❖ Visit of World Bank team for mid term evaluation of TEQIP on 15.02.2019.

❖ Visit of Labs and Shops to show the facilities in department to UG students along with Dean on 20.02.2019.

❖ One week short term course on Computational and Statistical Techniques in Engineering, Science and Agriculture from 25.02.2019 to 01.03.2019 jointly organized by CTAE and MNIT by Dr Chitranjan

❖ STC on Enhancing Competence of Administrative and Technical Staff of Academia from 11.03.2019 to 15.03.2019 under twining activity of TEQIP III by Dr Chitranjan

❖ Group photograph of UG and PG students on 28.02.2019

Awards/reorganization by faculty, staff and students

❖ Four students won prizes in Slogan competition on the occasion of Teacher's Day by ICFAI in department on 15th Sept., 2018

❖ First two meritorious students from III BTech and II year BTech received award of Rs. 4000/= each from Shri Ram Mills, Kota on Alumni day 13.10.2018

❖ Dr.KK Chhabra and Rajeev Chhabra scholarship awarded to one student from II BTech and one student from III BTech

❖ Ms Gulnaz Rasiya II year student of MED got III position in State Youth Parliament organized by Ministry of Youth Affairs & Sports, GOI on 05.02.2019.

❖ A group of final year students participated in Go Kart competition at Noida from 21.02.2019 to 26.02.2019.

Campus interview/placement of students and other student activities

❖ Ayush Choubey, Anupam Sharma and Meenakshi Makhijani three students placed in HZL Vedanta group

New positions and nominations

❖ Dr S Jindal appointed as Chief Coordinator NewGen project

❖ Dr Chitranjan appointed as Warden, PG Hostel

❖ Dr MS Khidiya appointed as Coordinator, Music Club

International conferences attended/foreign visits by faculty

❖ Dr BL Salvi attended Engineering Congress held on 21-23, Dec 2018 at Ananta Resort, Udaipur

❖ Dr MA Saloda, Dr BP Nandwana and Dr BL Salvi were member of organizing committee in Engineering Congress

❖ Dr BL Salvi visited NPIU, New Delhi for MIS software testing on 23.02.2019

❖ Dr BL Salvi visited AICTE to attend Student Learning Assessment on 05.03.2019

Visit by dignitaries to the unit with date, purpose

❖ Prof GS Dangayach, Dr ML Meena and Dr Sushant Upadhyay from MNIT Jaipur visited department under twining activities of TEQIP

❖ Prof Nageshwar Rao Mentor TEQIP visited department on 18.10.2018

❖ Mr Shikhar Kumar Pandey from Secure Meter delivered lecture on 26.10.2018

❖ Prof GS Dangayach, Dr ML Meena and Dr Sushant Upadhyay, Prof Kailash Singh from MNIT Jaipur visited department under twining activities of TEQIP

- ❖ Smt. Sunita Kothari, expert lecture in STC on 27.02.2018
- ❖ Prof SS Bhanawat, MLSU, expert lecture in STC on 26.02.2019

Any other major event

- ❖ Fresher's Day was celebrated by II BTech students on 26.02.2018
- ❖ Prof BP Nandwana and Dr BL Salvi have published the second revised edition of Lab Manual of Machine Drawing for I year students
- ❖ Superannuation of Sh Girdhari Singh and Sh Satish Paneri on 26.02.2019

Student Activities in 2018-19

Teacher's Day Celebration by ICFAI

Inauguration of STC on Computational and Statistical Techniques in Engineering, Science and Agriculture

Visit of World Bank Team for TEQIP

Superannuation of Sh Girdhari Singh and Sh Satish Paneri on 26.02.2019

GO KARTING- Participation at National Level

For the first time in the history of college, a group of Final Year Students from Mechanical Engineering Department (14 members) participated in 6th Go Kart Design Challenge (GKDC) competition under the guidance of Prof. Sudhakar Jindal.

Go Kart Design Challenge is a contest formulated to enhance the approach of students practicing Engineering and Diploma courses. This event is fundamentally all about designing and fabricating a Go Kart at very low expenditure yielding optimum performance. Teams are required to manufacture their Go Karts without any direct/indirect involvement of any kind of Professional help. Teams participating in this contest have to go through two rounds, Pre-Final Round (PFR) and Final Round (FR).

The event is organized at National Level by ISNEE (Indian Society of New Era Engineers) which provides a platform to all the Engineering and Diploma pursuing candidates to steer their path towards Technical and Managerial expertise.

Team CTAE cleared Pre-final round successfully which is based on the design and fabrication of the Kart. The final round was conducted at Buddh International Circuit, Noida. In final round, several evaluations were done, out of which the team got good ranking in some. Even being the first experience, team performed very well and flared the flag of CTAE at National Level.

Go Kart Developed by Mechanical Engineering Students

Department of Mining Engineering

The degree programme in Mining Engineering started in the year 1996 and prior to this department was imparting prestigious diploma sandwich course in Mining and Mine Surveying since 1957. During this period, department has attained remarkable achievements in fields of teaching, research and extension.

The faculty in the department is very much competent and highly qualified from premier institutes including IIT, having long experience of teaching and research. The department also keeps a very good rapport with industries, and relevant experts are frequently visiting the department and impart exposure to our students to a great extent. The location of the department is in the heart of mining activity which helps in the field oriented understanding for Mining Engineering students.

The department has its own building with well-equipped laboratories (Mine Computing Lab, Rock Mechanics & Dimensional Stone Lab, Geology and Environment Lab, Mining and Mineral Dressing Lab, Survey Lab, Gas Testing Lab), classrooms and seminar hall. Classrooms are well equipped with the modern teaching aids like OHP, LCD etc.

Programme Offered:

(i)   B.Tech. (Mining)   -   20+2 Seats TFWS

(ii)   M.Tech. (Mine Planning)   -   8 Seats

(iii) Ph.D. (Mining)   -   4 Seats

Placement of the B.Tech. students in the year 2017-18   : 90%

Activities of the Department during 2018-19:

❖   National Workshop & Exhibition on Problems of River Sand Mining and Its Alternates   held during April 21-22, 2018 at CTAE, Organized by : Mining Engineers' Association of India, Rajasthan Chapter Udaipur In Association with Department of Mines & Geology, GOR & Dept. of Mining Engineering, CTAE, MPUAT, Udaipur. All the faculty members and B.Tech. & M.Tech. student attended the Seminar.

- Technical visit of II Year B. Tech. Mining students conducted at Rajpura-Dariba/ S.K. Mine of HZL on 7.9.18. and at Jhamarkotra Mine on 21.7.2018.[Incharge: Er Akhil Avchar, Pradeep Bidua and Dr. V.K. Mehta]

- A "Mining Engineering Technology Day Event" was organized on 02.08.2018 at Mining Engg. Dept. by Mr. Nitin Jain, EDS Technology Pvt. Ltd., discussed the application of GEOVIA Surpac software. All the B.Tech. & M.Tech. student & Faculty member of Mining Engineering attended the event.

Mining Engineering Technology Day Event

- One Day CTAE Alumni Entrepreneur-Student Meet-2018 attended by Final year B.Tech. student and Faculty member on 21.07.2018 at Placement Cell. Special Guest was Sh. Vipul Jani, Ge.Manager, DIC, Udaipur

- A technical talk on "Recent Trends in Underground Mining Operation" was delivered by Mr. Constantinos Panidis, Australian Expert, on 17.08.2018 at Mining Eng. Dept., Org.by MEAI Raj. Chapter and Dept. of Mining Engg. All the B.Tech. & M.Tech. student & Faculty member of Mining Engineering attended the talk.

- First Aid and Trade Test Competition on 28.10.2018 at Mining Dept.CTAE, Org. by MP Birla Group. About 29 Mines Senior Official visited our dept. and held discussion with staff & student.

- A technical talk on "Changes Proposed in Metalliferous Mine Regulation" was delivered by Shri A.K.Porwal, Director, Mines Safety, on 24th Dec.2018 at Institution of Engineers, Local Centre, Udaipur, B.Tech. & M.Tech. students & Faculty member of Mining Engineering, CTAE attended the talk.

Technical Visit

- The Indian Mining Day theme "Future of Mining in India-Vision 2040" celebrated on 1st Nov.2018 at Institution of Engineers, Local Centre, Udaipur, Keynote speaker were Mr. Maqbool Ahmed, Vice Presidnet (Mining), BCW, and Er L.S. Shekhawat, COO, HZL. B.Tech. & M.Tech. students & Faculty member of Mining Engineering, CTAE attended the Mining Day.

- A technical talk on "DMFT an opportunity and a challenge" was delivered by Ms. Srestha Banerjee, Programm Manager, CSE, New Delhi and Mr Asif Ansari, ME, DMG, Udaipur, on 09.01.2019 at Mining Dept. CTAE.. B.Tech. & M.Tech. students & Faculty member of Mining Engineering, CTAE attended the talk.

❖ A technical talk on "Innovative Digital Product (Softwares) for Mining" was delivered by Mr Amit Bhandari, Managing Director, MIneexcellence, Australia on 04.10.2018 at Amantra Comfort Hotel., Org.by MEAI Raj. Chapter B.Tech. & M.Tech. students of Mining Engineering, CTAE attended the talk.

❖ Mining Camp was organized for II Year B. Tech. Mining students during 26.12.18 to 05.01.19 and visited various opencast as well as underground mines such as R.K. Marble Morwad Mines, Wonder Cement Nimbahera, Jhamarkotra Rock Phosphate Mines, Zawar Mines - Balaria Mines,J.K. Limestone mines Daroli etc. [Camp Incharge: Dr. Akhil Avchar, Er Pradeep Bidua & Er.Rajeev Verma]; Survey Camp was organized at Dept. of Mining Engg. and Daroli Limestone Mines during same period (Camp Incharge: Dr V.K. Mehta & Er. Rajeev Verma).

❖ III Yr B.Tech. Mining students: Mr Gajendra Gurjar, Mr Rituraj, Mr Manish Kr Dave, Kailash Ram and Santosh Paliwal, participated in short training programme on "Development of Research Competency for Natural Resource Management" at SWC dept CTAE during 14-18 February 2019

❖ Final year B.Tech. Mining students: Ms. Aishwarya Lohar, Aparna Chauhan, Ms.Jyoti Patel, Mr Madan Mohan Gupta, Mr Parag Dangi, Ms.Sakshi Gupta, Mr Subham Vijayvargiya, Mr Sanjay Kumar Jaipal, Mr Bhawani Shankar Sharma and Mr Sourabh Sharma attended "Geomodelling Event" at IIT Roorkee during 15-17 March 2019.

❖ III Year B.Tech. Mining students: Mr. Jeevraj, Mr. Deepak Sharma and Mr Ashraf Khan and II Year B.Tech. Mining students: Deepak Gawariya, Ms Mansi Vaishnav, Ms. Harshita Labana, Mr Gaurav Sahu, Mr Maninder Singh Sandhu, Mr Lakhvinder Singh Mehra, Mr Ayush Sharma and Mr Mohit Lakhara attended workshop on " Internet of Things" at IIT Roorkee during 15-17 March 2019.

❖ A technical talk on "Explosive incense-Procedure and Problems" was delivered by Shri R.D. Saxena, Consultant Mining Engineer, on 2nd March 2019 at Institution of Engineers, Local Centre, Udaipur, B.Tech. & M.Tech. students & Faculty member of Mining Engineering, CTAE attended the talk.

❖ Mr Aqsam Ahmed Siddiqui, II B.Tech. Mining student attended "Soft Skill, Strengthening Team Sprit and Leadership Quality Event" during 22-24 March 2019, at IIT Bombay.

❖ Dr. S.C. Jain attended One Week FDP programme on "Artificaial Intelligence and Machine Learning" during 17-21 Dec.2018, though National Knowledge Network under the" Scheme of financial assistance for setting up Electronics & ICT Academies, by the Ministry of Electronics and Information Technology (MeitY), Govt. of India

❖ Er Akhil Avchar and Er. Rajeev Verma, NPIU faculty, attended faculty exchange activity during June 10-31, 2018, at IIT Ism Dhanbad, Jharkhand.

❖ Er. Rajeev Verma, NPIU faculty, attended STC on Computational Research Techniques using MATLAB during October 22-26, 2018, at MNIT Jaipur, Rajasthan.

❖ Er. Rajeev Verma, NPIU faculty, attended STC on Research Methodologies for Scientists and Engineers during Feb 2-4, 2018, at IIT BHU Varanasi (U.P.)

❖ III Year B.Tech. Mining Students: Mr Santosh Paliwal, Mr Kailsh Ram, Mr Gajendra Gurjar, Mr Vikki Saini, Mr Manish Dave attended IT Day (Hackathon) at Jaipur, during 20-21 March 2018.

❖ III Year B.Tech. Mining Students: Mr Santosh Paliwal, Mr Deepak Sharma, Mr Gajendra Gurjar, Mr Kailsh Ram, Mr Ashraf Khan, Mr Jeevraj Chauhan; II Yr B.Tech. Mr Maninder Singh attended Great Step at IIT Kharagpur during 2-4 Nov. 2018.

❖ III Year B.Tech. Mining Students: Mr Deepak Sharma, Mr Ashraf Khan, Ms. Sandhya Singh, Mr Himanshu Kalra, Ms. Laxmi Meghwal; Final Yr B.Tech. Students: Mr Madan Mohan, Mr Palash Sharma, Mr Parag Dangi, Ms Aishwaria attended Technex at IIT BHU during 16-18 March 2018.

❖ III Year B.Tech. Mining Students: Ms. Laxmi Meghwal, Ms. Sandhya Singh, Ms. Samina Begum, Mr Jeevraj Chauhan, Mr Ashraf Khan, Mr Maninder Singh attended QUARK 2K19 at BITS PILANI, GOA Campus during 2-4 Feb. 2019.

Field Visits by Students

Department of Processing and Food Engineering

The department is well equipped teaching and research facilities. The teaching faculty is professionally sound with doctorate degree and rich experience of teaching and research. Research and development related to processing and value addition of food materials is also being carried out.

The courses are designed to cater the need of industry in the areas of Post Harvest Processing and Value Addition to Food Materials. The curriculum strengthens the overall competence of the students as well as their proficiency in dealing with handling, processing, transportation and storage of seed, grains, cereals, pulses & oil seeds and other farm produce. It also deals in quality control and value addition of farm produce.

Vision

"To be a center of excellence which integrates all facets of food engineering, entrepreneurship and management and be recognized as the focal point for catalyzing the growth of the food processing industry in India in the global context."

Objectives

1.   To provide the strong base of agriculture processing and food engineering in the undergraduate programme leading to B. Tech. (Ag.) Degree.

2.   To offer post graduate programme in agricultural processing and food engineering leading to M. Tech. (Ag.) Degree in processing and Food Engineering

3.   To offer post graduate programme in Agricultural Processing and Food Engineering leading to Ph. D. degree in Processing and Food Engineering.

4.   To conduct research in Agricultural Processing and Food Engineering leading to process, control, product and equipment development.

Intake capacity

Undergraduate : B. Tech. (Agricultural Engineering) started in 1964 with intake capacity of 55

Postgraduate programs

❖   M Tech (Processing and Food Engineering) started in 1978 with intake capacity of 8

❖   Ph D (Processing and Food Engineering) started in 2005 with intake capacity of 5

Laboratories and Research Facilities of the Department

The department has all the basic, and many advanced laboratories with modern equipment and machinery to enable it to remain in the forefront of processing of agricultural produces. The following laboratories are there in the department:

Name of the Laboratory	Equipments /facilities
Food Analysis Lab	Texture Analyzer, Water Activity Meter, Digital Moisture Analyzer, Head Space Analyzer, RVA Starch master, Hunter Lab colour meter, Viscometer, Muffle Furnace, Solvent Extraction unit
Unit Operation Lab	Indented Cylinder Separator, Sp. Gravity Separato r, Cryogenic Grinder, Dryers, Hammer Mill, Burr Mil, Cyclone Separator, Sieve Shaker, Seed Testing Machine
Dehydration Lab	Micro Wave Dryer, Osmotic Dehydrator, Freeze Dryer, Vacuum Oven, Mechanical Tray Dryers, Fluidized bed Dryer,
Experiential Learning Lab	Blancher, Cutter, Slicer, Chopper, Dehydrator, Deep Freezer and Vacuum Packaging Unit
Dairy Engineering Lab	Lab tutor of Refrigeration and Air Conditioning, Plate Heat Exchangers, HTST Pasteurizer, Cream Separator, Surface Cooler, VAT Pasteurizer, Short and Long Tube Evaporator, Falling Film Evaporator, Heat Exchangers
Computation Lab	Computing lab with latest computers
Post Harvest Engineering Lab	Rice Mill, Pulse Mill, Grinder, Cleaners, Pin Disc Mill, Oil Mill
Experiential Learning Lab	Blancher, Cutter, Slicer, Chopper, Dehydrator, Deep Freezer and Vacuum Packaging Unit

Classroom with AV Facilities

Apart from conventional classroom teaching, advanced audio-visual aids are used to build innovative outlook and research inclination among the scholars and ease the conceptualization of technological aspects. The advance audio-visual tools comprises classroom studies on LCD projector which not only produces a conducive environment for learning but also aids in better understanding of the basic concepts of the subject.

Library

The Department has library facilities for Postgraduate students and faculty members. Presently there are more than 50 books and 35 dissertations available in the library.

Awards and faculty credentials

Department is having highly qualified faculty engaged in teaching of the Agricultural Engineering students. Most of the teaching faculty is having their academic qualification from premier and prestigious institute i.e. Indian Institute of technology, Kharagpur. Three faculty members are fellow of IE (I) and almost all the faculty members have been felicitated at University or at national level by professional bodies like ISAE, AFST (I) and IE (I) from time to time.

During July 2018 to Apr. 2019 nearly 13 research papers and 2 chapters published by the faculty members of department.

Prototypes and Technologies developed in the Department

Prototypes developed	Technology developed
➢ Microwave Dryer ➢ Osmotic Dehydrator	➢ Microwave assisted dehydration technology for ginger, garlic, turmeric ➢ Technology for osmotically dehydrated products of sapota, papaya, onion, banana, garlic

Prototypes developed	Technology developed
➢ Maize dehusker Sheller ➢ Garlic bulb breaker ➢ Garlic clove peeler ➢ Garlic clove flaking machine ➢ Ginger peeler cum polisher ➢ Solar grain treatment machine ➢ Solar Seed treatment machine ➢ Solar dryer ➢ Aloe vera gel extractor ➢ Multi- purpose mill ➢ Storagee bins ➢ Stalk wafering machine	➢ Garlic dehydration technology ➢ Technology for value added product of pearl millet ➢ Technology for ginger and turmeric processing ➢ Technology for processing of arid fruits & vegetables ➢ Technology henna processing ➢ Technology for quick cooking rab powder ➢ Technology for Maua flowers ➢ Pectinase fruit juice processing

Automatic Garlic Peeler Developed under PHET Scheme

Ginger and Turmeric Polisher Developed by PHET Scheme

Ginger Peeler Developed under PHET Scheme

Corn Roaster cum Boiler Developed under NEW-GEN Scheme

Department of Renewable Energy Engineering

The Department of Renewable Energy Engineering was established in the college in the year 1981, with the objectives of Teaching, Research & Extension in the field of Renewable Energy; keeping in mind about the importance of Energy, Ecology & Environment in the fast changing scenario. The department has acquired National and International fame within a short span and contributed number of technologies in the field of renewable energy. Post graduate course programmes had been introduced viz. M.Tech. (RES) in the year 1986 & Ph.D. (RES) in the year 1999. The Ministry of New & Renewable Energy, Govt. of India had also recognized its M. Tech. & Ph.D. degree for awarding fellowship to deserving candidates for undertaking research in the field of renewable energy.

The Department is having a vision of to be a centre of excellence which integrates all facets of Renewable Energy, entrepreneurship and environmental management and be recognized as the focal point for catalyzing the growth of the energy and agriculture, renewable energy engineering and related industries; and to produce skilful and high quality post graduate engineers supported by up-to-date curriculum and scientific and industrial research to suit the industry, to enhance the energy saving potential by providing databank, testing facilities, suitable consultancy and training services.

The department works with following objectives:

❖ To create a strong base for use of new & renewable energy sources in agriculture for increased production and for meeting out domestic energy requirement.

❖ To create awareness for rural development through recycling of locally available organic waste for energy use and manure availability.

❖ To offer postgraduate programme in Renewable Energy Engineering leading to M.Tech.(Ag), Ph.D.(Ag.) in renewable energy and courses of undergraduate students.

❖ To offer under graduate and post-graduate research project to the students of different disciplines.

❖ To generate employment at rural level by providing training for self employment.

New Additions in Laboratories:

The Department of Renewable Energy Engineering continues to be dedicated to its strategic plan to continue upgrading teaching and research equipment. The educational and research agendas span a wide range of agricultural science and engineering disciplines.

A.   Gas Chromatograph costing Rs. 10.Lakhs procured under NAHEP which will facilitate:

B.Tech, M.Tech, and Ph.D. Students in their research work particularly for detection of Biogas Components i.e. CH_4, CO_2 and H_2S Gases and Syngas Components i.e. H_2, CO, CH_4, N_2, CO_2 and O_2 Gases.

Gas Chromatograph

B.   Thermogravimetric Analyzer (TGA) costing Rs. 32 Lakhs

Thermogravimetric Analyzer (TGA) instrumentation within the department benefits not only our students and researchers, but students both undergraduate and post graduate in many other disciplines as well.

Thermogravimetric Analysis (TGA) measure weight changes in material as a function of temperature (or time) under controlled conditions. Its principal uses include measurement of a material's thermal stability and composition. The instrument is useful for students, faculty, and industrial applications to demonstrate thermal behavior of combustible solid fuels.

Thermogravimetric Analysis (TGA)

Presently in the department, following research and extension programmes are undergoing-

S.N.	Name of the project	Funding Agency	Fund Allocated for the financial year 2018-19 (Rs. In Lakhs)
1	AICRP on EAAI	ICAR	133.20
2	Biogas Development and Training Center	Ministry of New and Renewable Energy, GoI	20.00
3	CRP on EA	ICAR	13.00

Renewable Energy Engineering PG programme got Accreditation from the National Board of Accreditation, New Delhi for the academic sessions 2017-18 and 2018-19.

During the academic session 2018-19; 8 students in M.Tech. programme and 4 students in Ph.D. programme were admitted.

At UG level, final year B.Tech. students are being imparted hands on training under the Experiential Learning Programme.

Two M.Tech. (Agricultural Engineeirng) students of CTAE namely Ms. Katakam Anoosha and Mandala Tanmay, who had worked on the research project - 'Farmer-Friendly Agri-Dryer', have been selected in the Student Start-Up NIDHI Award - 2018. The college's team was one amongst the 14 teams (out of 1000 students) who got qualified from all across India. It is a very significant achievement in the field of Agri-preneurship, which will help in bridging the gap between innovation and application in Indian agriculture. This research work was taken up under the "Technology Business Incubation Center" of the college in the Department of Renewable Energy Engineering.

Under this coveted project student team has been awarded a sum of Rs. 10.0 Lakhs for establishing their own Start_Up organization/ company with an agreement.

Ms. Madhuri More selected for development of dewatering machine for bio slurry under New-Gen scheme worth Rs. 1,20,000/-

Er. Ashish Pawar, Ph.D.scholar and Er. Divyesh, M.Tech. Scholar attended National Level Training Programme on Bio energy Technology, Demonstration and its Implementation at NIBE, Kapurthala, Panjab from 27.02.2019 to 01.03.2019.

Er. Vijendra Sankhla, Ph.D.scholar presented paper on Biogas Refrigeration system for dairy farmers at ISFM-2018 conference on Energy Material held at Chandigarh.

Training Programme Counducted:

Eight "Biogas Plant Construction cum Maintenance Courses" of 10 days each, One "Turn Key Workers Training of 15 days and Three "Biogas Staff Training Course of 4 days each (supported by MNRE) were organized in the States of Rajasthan and Gujarat, wherein 69 masons, 10 turnkey workers and 24 staff were trained respectively for construction of family size biogas plants. These courses were organized in Jaipur, Dausa, Alwar, Banswara, Bikaner and Surat districts.

Venue of construction cum maintenance course

S. No.	Name of the Village	District	State	Date	Nos. of plants constructed	No. of trainees
1.	Kancholiya	Jaipur	Rajasthan	24.09.2018 to 03.10.2018	2	6
2.	Sindoli	Dausa	Rajasthan	04.10.2018 to 13.10.2018	5	8
3.	Unbada Gav	Dausa	Rajasthan	22.10.2018 to 31.10.2018	9	10
4.	Mavdi, Behror	Alwar	Rajasthan	14.11.2018 to 23.11.2018	5	10
5.	Bichgav	Alwar	Rajasthan	24.11.2018 to 03.12.2018	5	7
6.	Sherera	Bikaner	Rajasthan	13.12.2018 to 22.12.2018	5	9
7.	Khatela Sath	Banswara	Rajasthan	26.12.2018 to 04.01.2019	5	10
8.	Gav Talav Khurd	Surat	Gujarat	11.02.2019 to 20.02.2019	3	9

Construction of digester wall during CMC

Plastering of digester wall during CMC

Completion of Biogas Plant Construction cum Maintenance Course

Lectures delivered during TKW training

Layout for biogas plant during TKW training

Visit of BPG Plant at Bhilwara

Completion of Biogas TKW training

Awareness camp at Village Unbada, Dausa

Awareness camp at Village Bichgav, Alwar

Lectures during Staff Training at BDTC

Completion of Biogas Staff Training

Mahila Kisan Divas in Village Hyala, District Udaipur

Mahila Kisan Divas was organized at Village Hayla District Udaipur on 15th October, 2018. Total 70 participants (55 females) attended the Mahila Kisan Diwas. Exhibition and live demonstration on use of renewable energy technologies in agriculture and domestic sector viz. biogas plants, solar cooker, solar dryer, solar lantern , improved cook stove, etc. for empowerment of women through enhanced agricultural productivity and income generation was done.

Significant Achievements

1. Dr. Deepak Sharma, Principal Investigator and Dr. N. L. Panwar, Assistant Research Engineer; attended the XXII Annual Workshop of the All India Coordinated Research Project on Energy in Agriculture and Agro-based Industries (AICRP on EAAI) for the year 2018-19, held at College of Agricultural Engineering, University of Agricultural Sciences Raichur, on December 10th to 12th 2018. The annual progress of 2018-19 and future research proposals were presented in the meeting.

2. Certificate of recognition to Dr. Nikita Wadhawan for phenomenal and worthy keynote presentation on 'Development and Quality Evaluation of Commercial maize products' at the World Congress on Advanced Food Science and technology held during October 15th -16th 2018 at Paris, France.

3. Dr. Nikita Wadhawan was appointed as Course Coordinator in ICAR sponsored Summer School on 'Employment Generation through skill Oriented Agricultural Entrepreneurship Development among Rural Youth' held during 31st July to 20th August 2017 at CTAE, Udaipur.

4. Dr. Deepak Sharma, Principal Investigator and Professor, AICRP on EAAI, Udaipur and Ddr. N. L. Panwar, Principal Investigator and Assistant Professor, CRP on EA had attended MHRD- TEQUIP five days Summer training on "Active Learning" at IIT, Mumbai held during 4-8th June, 2018.

5. Dr N. L. Panwar was conferred Best Reviewer Award by Indian Society of Agricultural Engineers, New Delhi for his outstanding contribution in Journal of Agricultural Engineering at 52nd Annual Convention Held in Anand Agricultural University, Anand on 8-10th January, 2018.

6. Dr. Deepak Sharma, Principal Investigator and Professor, AICRP on EAAI, Udaipur is nominated as Divisional Editor, Journal of Agricultural Engineering published by Indian Society of Agricultural Engineers, New Delhi.

Department of Soil and Water Engineering

The department of soil and water engineering of college was established in 1967. The department is imparting teaching at under graduate level leading to degree of B. Tech (Ag.). The department was started mater program in Soil and Water Conservation Engineering in 1978 and Irrigation Water Management Engineering in 1986 leading to degree of M. Tech (Ag.). The PhD program in Soil and Water Conservation Engineering and Irrigation Water Management Engineering was started in 1996. The department has produced 79 M.Tech and 25 PhD student (both discipline) in last decade. The department has well qualified staff having sufficient teaching research and extension experience. The adequate supporting staff is also available with the department. The PG program in Soil and Water Conservation Engineering has been accredited by nation board accreditation in 2018-19. Dr. P.K. Singh received best teacher award from MPUAT, Udaipur with cash prizes of 50,000.

Laboratories :

1. Soil and Water Conservation Engineering Laboratories

2. Agro Meteorological Conservatory

3. Irrigation and Water Management Demonstration Laboratory

4. Drainage Laboratory

5. Ground Water Pumping Laboratory

6. Soil Conservation Demonstration Farm

7. Remote Sensing & GIS Laboratory

8. Ground Water Pumping Laboratory

9. Internet Laboratory for Students

10. Plasticulture Technology Laboratory

Research Projects on Irrigation Water Management and Plasticulture Engineering Technology funded by ICAR, New Delhi and an international collaborative project ACIAR, Australia.

One week training on Natural Resource Management at CTAE, Udaipur

Farmers training organized by AICRP on IWM team at Dedkiya village

Trainings Organized by Department of Soil and Water Engineering, CTAE, Udaipur

S.No.	Name of Training	No. of Participants	Duration	Name of Experts	Coordinator
1	Development of Research Competency for Natural Resource Management	50	14-18 Feb., 2019	Dr. B. L. Tailor NBSS&LUP, Udaipur	Dr. K.K. Yadav
2	Disaster Management	120	31 March, 2019	Dr. K.S. Hiran, Mr. M.L. Barbar, Mr. P.C. Gupta	Dr. P.S. Rao

One day workshop has been conducted on Disaster management for all NCC cadets NSS volunteers and rovers as well as Ph.D. students offering the course of disaster management. Overall 120 participants participated in this workshop. Various lecturers and practical exercises has been taken by Satya Sai NGO as well as some experts invited for guest lecturers. Main topics covered as theory as well as practical were Disaster management - an overview, Fire fighting, Rescue operations, First aid, Knots and their types etc. The certificate was given by Dean of the college Dr. Ajay Kumar Sharma.

National Cadet Corps

The NCC is the world's largest uniformed youth organization.

Its motto is 'Unity and Discipline'.

Success Story of NCC Cadets in NIC Camp
At Rajpipla (Baroda) Gujarat- An Experience

First time CTAE, NCC Unit was participated in NIC(National Integration Camp) out side the state during last five years. The camp was scheduled from 9th January to 20th January, 2017 at Rajpipla (Baroda) Gujarat. The contingent was escorted by Lt. P.S.Rao, Incharge NCC , CTAE, Udaipur. It was winter season with heavy fog with cold waves even at Gujarat.   The contingent of Rajasthan Directorate of NCC having 10 SD Cadets from CTAE, Udaipur and 6 SW cadets from Govt. Meera Girls college, Udaipur. Our SD Cadets had no experience and preparation of NIC as semester exams had been over just four days before commencement of this camp. The girls cadets of MG College were somewhat exciting for this camp particularly for cultural competition. Before this camp I had little bit experience of NIC camp as I had attended one NIC camp at Udaipur. Accordingly I issued all necessary items such as costumes, Dholak, Mazira, and accessory for NIAP programme which was our incentive. Our cadets work hard during NIC and participated in each and every event. First of all we reached at Rajpipla at 2.00 PM on 9th January and registered ourselves. The camp site was very beautiful and having all the infrastructure facilities. At Rajpipla there is NCC Academy and having large building for staying boys and girls separately, having play grounds, theaters, Officers mess, Dining halls for SD and SW cadets, residential facilities for Officers and other PI staff and recreation hall separately. Reaching at Rajpipla on very first day there was opening address by group Commander after that we started preparation for competition. Basically there was eight kind of competitions viz. 1. Debate completion 2. Poster making, 3. Group Song 4. Group dance 5. NIAP (National Integration Awareness Programme) 6. Volly-ball 7. Ramp Walk cum Costume Competition and 8. Kho- Kho (Company wise). The topic for debate completion was "Is Military services are compulsory for making India." The topic for debate competition was Effects of Pollution. Our cadets work hard and won overall Championship at National level among 17 Directorates of NCC having about 600 cadets. Rajasthan Directorate and CTAE cum MG College cadets won first prize in Group Song, Group Dance, NIAP, Ramp Walk cum Costume competition and Second in Volley-ball and consolation prize in Debate and poster making. In NIAP our cadets made power point presentation along with acting presented, cultural values of our history, folk songs, festivals, political awareness, games and sports and acting as Maharana Pratap, Meera Bai, Hadi Rani, Prithvi Raj Chouhan with his great poit Chand Vardai,Rani Padmini, Environment protection by Bishnoi Community etc. Our cadets stood first in costume competition cum Ramp Walk and stood second in Volley-ball competition. Won Consolation in Debate and Poster making. Two of our best cadets Cadet Harsh Soni and Cadet Charu Mehta participated in MC's(Master of Ceremony) and organize the events nicely. All credit goes to our cadets. Some of memories shown in pictures.

Dr. P. S. Rao
Captain

National Service Scheme

During the session of 2018-2019 NSS Unit-I& II of CTAE whole heartedly contributed towards achieving the broad objective of national service scheme like identify the needs and problems of the community and involve them in problem solving process, develop among themselves a sense of social and civic responsibility, develop competence required for group living and sharing of responsibilities, gain skills in mobilizing community participation, acquire leadership qualities and democratic attitude, develop capacity to meet emergencies and natural disasters and practice national integration and social harmony.

The volunteers participated in many activities and programmes throughout the year. A few of them are given here:

1. Organisation of Blood Donation Camp

Blood donation camps are being continuously organized by the NSS unitsof CTAE from last many years. In these camp NSS volunteers and other students of the college enthusiastically donated the blood. This year blood donation camp was organised on September 9, 2018. Total 85 units of blood were donated in this camp.

2. Celebration of Gandhi Week in October 2018

First week of October was celebrated as Gandhi Week. In this week various activities were organized based on teachings of Gandhi. 150th Gandhi Jayanti was enthusiastically celebrated on 2nd October. A debate competition on the relevance of Gandhi's thought in present context was also organised. A number of students had participated in the competition. College Dean Dr.Ajay Kumar Sharma motivated student to follow Gandhi Ji philosophy in the life.

3. National Unity Day (31st October, 2018)

The National Unity Day was celebrated to commemorate SardarVallabhbhai Patel's birth anniversary by carrying out various events. CTAE NSS volunteers observed the day with great enthusiasm. A group of 50-60 volunteers took part along with teaching and non-teaching staff. Banners and posters spreading message of unity and security were displayed.Speaking on the occasion college Dean Dr Ajay Kumar Sharma, underlined the importance of National Unity Day in the development of the country.

4. Celebration of Surgical Strike Day (29 September, 2018)

On the occasion of the completion of one year of Indian army surgical strike on Pakistan, Surgical Strike Day was celebrated on 29 September, 2018. A number of NSS, NCC and other volunteers participated in the celebration. On this occasion participant wrote letters and poem for Indian Army.

5. Systematic Voters' Education and Electoral Participation

On the directive of District Administration & State Election Commission NSS, NCC and other student volunteers as well as staff of MPUAT have participated in Human Chain at fatehsagar on 15-11-2018 followed up by a pledge to vote for the purpose of enhancing the voting percentage in the forth coming assembly election.

The main objective behind this human chain was to create awareness among people about the importance of voting. The program was guided by the district SVEEP (Systematic Voters' Education and Electoral Participation) cell, the human chain have members from different education institutes, societies, government and non-government organisations, farmer associations, women organisations, officials from government and private schools, staff and common public was also the part of this 8 km long human chain.

Nearly 350 students from all the constituents colleges of MPUAT such as College of Community and Applied Science, College of Technology and Engineering, College of Dairy and Food Science Technology, Rajasthan College of Agriculture and College of Fisheries have participated in forming human chain to raise awareness among the common people for voting in the election.

6. NSS volunteers visit of adopted village Visma (March 15, 2019)

NSS volunteers visit of adopted village Visma (March 15, 2019). Volunteer conducted a voter awareness rally, The main objective behind this rally was to create awareness among people about the importance of voting and   enhancing the voting

percentage in the forth coming election. Apart from that they also conveyed message of cleanliness to school students and villagers.

7. **Visit to Narayan Seva Sansthan**

8. **Visit to Badi Lake**

9. **Donation Collection**

On the request of ZilaSanik Welfare Office and Indian Association for Blind, NSS volunteers collected the donation of total Rs 21, 102/-. Two draft of Rs 15,551/- and Rs 5,551/- were sent toZilaSainik Welfare Office and Indian Association for Blind respectively.

10. **Dustbin Making**

10.   Participation in Republic Day Parade

Two NSS volunteers of CTAE Ms. Kripali Purbia and Ms. Namrata Sankhala have participated in Republic Day Parade at New Delhi.

Dr. Jai Kumar Maherchandani   Er. Manjeet Singh
NSS, Officer Unit-I   NSS, Officer Unit-II

National Sports Organisation

The College has facilities for various games and sports activities. The College has its own play ground for Cricket, Volleyball, Tennis, Hockey, Indoor Table Tennis, Indore Badminton, Kabaddi, Football and the college permises of a playground for various sports activities, It also has gymnasium. The College games council Co-ordinates the college games and sports activities and University Sports Board Co-ordinates the activities of the various College mandatory inter college tournaments and MPUAT Participates in all India Inter University Tournaments every year are organised by ICAR in the different Agriculture Universities in the country.

महाविद्यालय में हर वर्ष की भांति इस वर्ष भी 2018–19 में इन्टर डिपार्टमेन्ट खेलकूद प्रतियोगिता का आयोजन किया गया इस प्रतियोगिता में जिन खिलाड़ियों ने अच्छा प्रदर्शन किया उन खिलाड़ियों का चयन निर्णायकों के द्वारा इन्टर कॉलेज खेलकूद प्रतियोगिता के लिये किया गया और वर्ष 2018–19 में अन्तर महाविद्यालय खेलकूद प्रतियोगिता का आयोजन हुआ जिसमें इस महाविद्यालय के खिलाड़ियों ने बहुत अच्छा प्रदर्शन किया और महाविद्यालय को सबसे ज्यादा खेलों में जीत हासिल कर शिल्डे प्रदान करवाई गई। पिछले वर्ष की भांति इस वर्ष खिलाड़ियों का प्रदर्शन बहुत अच्छा रहा। इस वर्ष जिन प्रतियोगिता में महाविद्यालय विजेता व उपविजेता रहा उनका विवरण निम्नानुसार है।

छात्र प्रतियोगिता

1.	क्रीकेट प्रतियोगिता	प्रथम
2.	फुटबॉल	प्रथम
3.	वालीबॉल	प्रथम
4.	हॉकी	प्रथम
5.	बॉस्केटबाल	प्रथम
6.	चश	प्रथम
7.	ऐथेलिटिक	प्रथम
8.	कबड्डी	द्वितीय
9.	टेबल टेनिस	द्वितीय
10.	बेडमीन्टन	द्वितीय
11.	रेसलींग	द्वितीय

छात्रा प्रतियोगिता

1.	टेबल टेनिस	प्रथम
2.	बेडमीन्टन	प्रथम
3.	वालीबॉल	द्वितीय
4.	ऐथेलिटिक	द्वितीय

इरलीना चौहान

Yoga

Yoga wing was started in College of Technology and Engineering Udaipur as per the guideline of AICTE. This wing comes under Directorate of University Sports welfare Office and also under wellness club activities. B.Tech. First year and second year students has to opt one stream from Sports / NCC /NSS / Yoga /Scouting as extra curriculum activities / non credit course and evaluated in second year fourth semester.

Yoga classes are regularly conducted on working days by yoga teacher regularly in first year boys AN Khosla hostel as well as in CTAE girl's hostel at 6.30am to 7.30 am.

Participants in yoga class perform /practice (a) Shuksham kriyas (b) Surya namaskar (c) Standing postures (d) Seating postures (e) Laying postures (f) Pranayam (g) Prayer etc and getting benefited by better control on body and mind.

International Yoga week was conducted for all faculty and students at university auditorium. Yoga classes also held for first year students in three week induction program.

Dr. Ranveer Shekhawat
Co-ordinator

रोवर स्काउटिंग

देश को सच्चरित्र, समर्पित, सेवाभावी एवं ऊर्जावान सुनागरिकों की आवश्यकता सदैव रही है। एक सच्चरित्र, नैतिक, स्वावलम्बी और राष्ट्रप्रेमी युवक देश की सम्पत्ति है। देश का भौतिक विकास, सशक्त सुरक्षा और कुशल नेतृत्वभावी युवकों पर ही आश्रित है। स्काउटिंग के संस्थापक लॉर्ड बेडन पॉवेल ने स्वयं को प्रस्तुत करवह कर दिखाय जिसके कारण आज विश्व में सब से बड़ा पोषाकधारी स्काउट गाइड संगठन बनने का गौरव प्राप्त कर चुका है। दुनिया के लगभग 217 आस्थावान देशों में बालक–बालिकाओं एवं वयस्कों को इसके माध्यम से स्वावलम्बन, मानवीय मूल्य, सहकारिता, सहभागिता, सेवा, स्वयं की क्षमताओं का दूसरों के लिय उपयोग कर सुनागरिकता स्थापित करने का प्रशिक्षण दिया जा रहा है। स्काउट गाइड संगठन एक सहशैक्षिक विश्वव्यापी आन्दोलन है जो शिक्षा के साथ–साथ छात्र–छात्राओं के विभिन्न प्रकार के आयोजनों, शिविरों तथा प्रशिक्षणों द्वारा आत्मनिर्भर, चरित्रवान, आज्ञाकारी, देशभक्त तथा सुनागरिक बनाने का कार्य पिछले 111 वर्षों से करता आ रहा है।

रोवरिंग रेजरिंग स्काउटिंग गाइडिंग की वरिष्ठ शाखा है जिसमें 16 से 25 वर्ष तक के युवक युवतियों को रोमांचक, साहसी, चुनौतीपूर्ण गतिविधियों के माध्यम से व्यक्तिगत विकास का प्रशिक्षण उपलब्ध कराया जाता है। रोवरिंग रेजरिंग में राज्य, राष्ट्रीय व अन्तर्राष्ट्रीय गतिविधियों में सम्मिलित होने के सुअवसर के साथ – साथ कोस्टल ट्रेकिंग, हिमालय ट्रेकिंग, डेजर्ट ट्रेकिंग में जाने के अवसर सहज ही प्राप्त हैं। साथ ही अनेक समाजसेवी एवं सामुदायिक विकास की गतिविधियों में भी सहभागिता करने के अवसर प्राप्त होते हैं।

विश्वविद्यालय अनुदान आयोग ने इसे शिक्षा का पूरक अंग स्वीकार कर प्रमुख सह–शैक्षिक गतिविधि में सम्मिलित किया है। अभियांत्रिकी एवं प्रौद्योगिकी महाविद्यालय में भी रोवर, रेंजर गतिविधियां वर्ष 2018–19 से प्रारम्भ की गई हैं। इससे पूर्व डॉ. कमल किशोर यादव एवंसांवल सिंह मीनानेरोवर स्काउट लीडर का बैसिक कोर्स किया। छात्राओं के लिए CSE विभाग से कल्पना जैन कोरेंजर गाइड लीडर नियुक्त किया गया है।

वर्ष 2018–19 में अभियांत्रिकी एवं प्रौद्योगिकी महाविद्यालय में निम्नलिखित कार्यक्रम सम्पन्न हुएः–

1- विश्व विद्यालय परिसर में स्थित गांधी टेकरी का भ्रमण

2- x.kra=fnol ijM

3- enu ekgu ekyoh; jktdh; egkfo|ky;]mn; ijesxkMZ vkWQ vkWuj

4- vkink izc/ku grqif'k{k.k

5- fui qk d&i
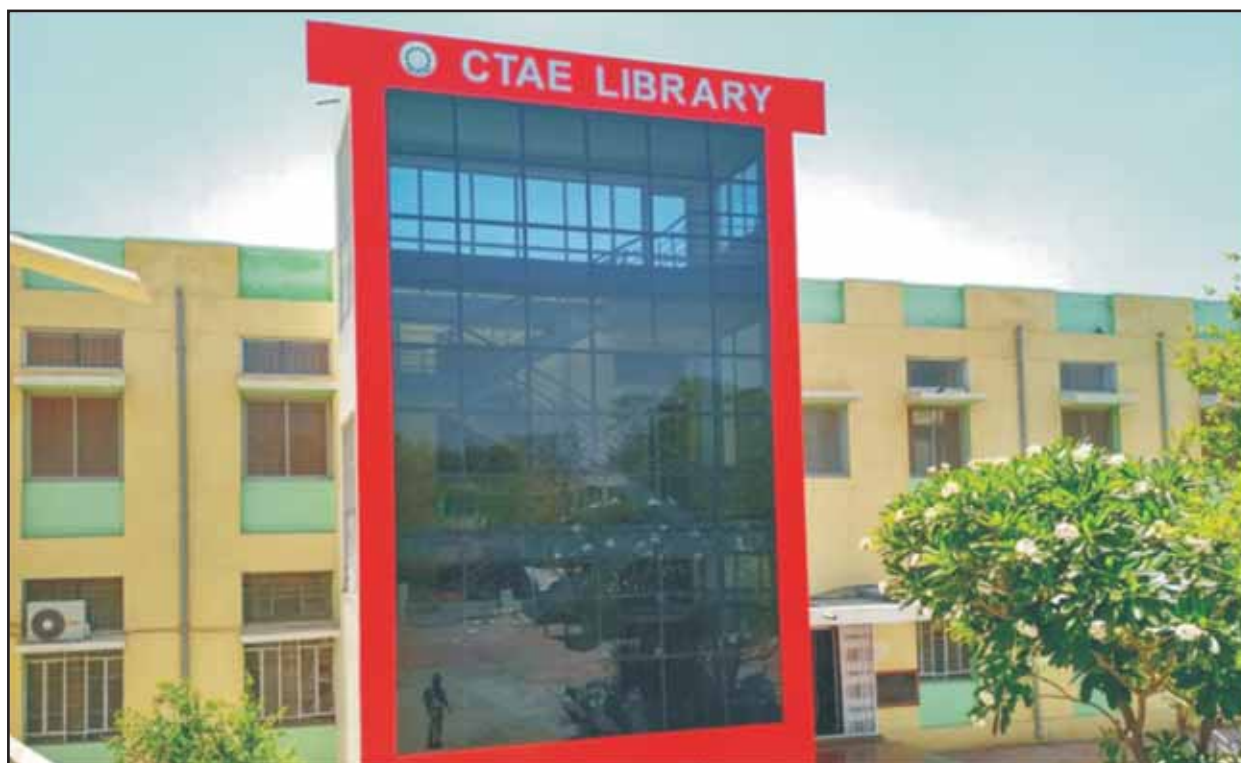

6- V{dx @gkbfdx

7- ernku tkx: drk vfHk;ku

8- ernkufnol ij lsokdk;Z

MkWdls ds ;kno
bZ , l - , l - eh.kk
bZ dYi uk t&

Library

The College has a specious and well equipped library which is run according to an open access system. The Library occupies area of 1500 Sq. Meter and has more than 200 seats for its readers. It has rich collection of about 59500 Volumes of Books, Bound Periodicals, Reference collection, Ph.D. thesis, ME/ BE Project Reports, Standards and CD-ROMs. Library has procured KOHA Software and computerized all the activities. All the library books having Bar Code. More than 1750 Users (Students and Staffs) using the library regularly. All the Users have been provided Electronic Cards. The timing of the Library is 10.00 A.M. to 8.00 P.M.. The Library having separate Internet Section for   M.Tech. and Ph.D. students. The Library having digital collection of 141

Pearson e-books and 96 McGraw Hill e-books (Total 237) related to all engineering subjects. More than 8000 e-journals which include packages of ASCE, ASME, IEEE, Springer, CERA, J-Gate, E-shoudh Sindhu and Indian Standards of Civil Engineering. The Library is also the members of the DELNET and access its resources.

The Library has NOT TO BE ISSUED SECTION. More than 2000 textbooks of all the engineering subject areas are in this section. The books of this section are issued on overnight basis for one day only.

Book bank

College has Book Bank facilities with more than 40000 textbooks of the all the subject areas. The set of book are made available to all the students of the college for which a rent @10% of the cost of the books shall be charged for a semester from general category students. However, no rent will be charged from the students of SC and ST on books issued from the Book Bank created and maintained out of the grants received from the Social Welfare Department, Govt. of Rajasthan. Security Money of Rs. 5000/- (Refundable) is also charged from all the member of Book Bank. More than 1480 students of UG and PG are the member of the Book bank.

Dr. Naveen Jain
Incharge

Placement Bureau

Following activities along with placement drive were organised by Information and Placement bureau during year 2018-19:

1. MOU withSecure meters Pvt Ltd, Udaipur to enhance industry-institute interaction where events like series of expert lectures, industry visits etc. were organised throughout the year

2. AICTE sponsored Two days workshop on "Industry oriented skill and personality development" during 17-18 March, 2019 for II/III year students

3. Six days training programme on "skill up gradation and entrepreneurship" during 26-31 January, 2019

4. Group discussion has been made a regular featured activity of the bureau on every Saturday on various technical, economical and social topics for students

5. One day workshop on 16February, 2019 on social and national issues

6. Various domain based lectures by experts from Industries were organised throughout the year for industry-institute interaction.

7. Two days workshop by google group on aspects of software computing during 22-23 November, 2018.

8. More than 35 companies visited the college campus for placement drive of 168 final year students.

COMPANIES VISITED FOR PLACEMENT	ELIGIBLE BRANCHES	NO. OF STUDENTS SELECTED
Secure meters Pvt Ltd, Udaipur	EE/ECE/CSE/IT	13
CauseCode Technologies Pvt. Ltd, Pune	CSE/IT	2
MERKLE SOKRATI, Pune	CSE/IT/ECE	7
TCS	CSE/IT/ECE	6
TEKSYSTEMS, Banglore	CSE/IT/ECE	3
Intecons Software Lab Pvt. Ltd, Jaipur	CSE/IT/ECE	4
YMPL, Udaipur	Electrical	4
APPPERFECT, Udaipur	CSE/IT	3
National Bearing Company , Jaipur	Mechanical	1
Vedanta Group	Mechanical/Electrical Civil/Mining	13
Bosch Limited	Mechanical/Electrical Civil/	7
International Tractors Limited	Mechanical/Electrical Civil/	8
Skilrock Technologies Pvt. Ltd	CSE/IT/ECE	7
GKM IT	CSE/IT/ECE	1
Metacube Software Pvt. Ltd., Jaipur	CSE/IT/ECE	8
Mahindra & Mahindra Ltd., Mumbai	Agriculture	2
CALSOFT	CSE/IT/ECE	1
JK Foundation	Agriculture	5
Cloudzeg Technologies, Jaipur	CSE/IT/ECE	8
Cognus Technology Ltd., Udaipur	All branches	6
AIMK information providers pvt ltd	All branches	28
Trade India Research, Indore	All branches	27
Wolkem, Udaipur	Mining	3
Exadatum Software Pvt Ltd, Banglore	CSE/IT	4
TOTAL SELECTION		171

Dr. Vinod Kumar
Incharge, Information & Placement Bureau

Technical Education Quality Improvement Programme
Phase - III

The TEQIP-II (Technical Education Quality Improvement Programme Phase-II) was successfully completed by College in March, 2017.The TEQIP-III **(Technical Education Quality Improvement Programme Phase-III)** of MHRD, GOI, and Component 1.1 with outlay of Rs. 10 Crore is functional in the college from 1 April, 2018. The Category wise fund allocation is Rs. 6 Crore for procurement of goods and services,Rs. 3 Crore for academic activities and Rs. 1 Crore as project operating costs. The key activities of procurement includes-purchase of lab equipment's, Classroom & Lab furniture, Smart Class rooms, Books including eBooks&ejournals, learning resources, academic software etc. The procurement also includes minor Civil Works of repair of academic buildings such as labs & class rooms.

The academic activities of TEQIP-III covers following broad activities:

Improve student learning:

❖ Induction Programme for 1st Year Students

❖ Short Term Trainings by IITs/NITs etc.

❖ GATE Coaching and Registration

❖ Expert Lectures, Remedial Classes and Bridge Classes

❖ Participating in Academic Fest, Tech Fest at IITs/NITs etc.

❖ Carrier Counselling and Personality development programmes for the students

Research Assistantship:

❖ Research assistantship to PhD students admitted as per AICTE/ UGC norms

Graduate Employability:

❖ Finishing Schools, Soft skill trainings

❖ Pre Placement and entrepreneurship development programme

❖ Start Up activities

Reforms and Governance

❖ NBA Accreditation

❖ UGC Autonomy

Faculty & Staff Development and Motivation

❖ Fee for qualification up-gradation

❖ Attending Seminar, Workshop, Conference etc.

- ❖ Staff Trainings at IITs/NITs, Industry and other Institute etc.
- ❖ Faculty Trainings at IITs/NITs, National Labs, other Premier Government/ Non-Government organization
- ❖ Organizing Trainings, Seminar, Workshop by faculty

Research and Development

- ❖ Seed money for Innovative research
- ❖ Attending Seminar, Workshop, Conference by students
- ❖ Publication in peer reviewed Journals, Patents by faculty and students
- ❖ Securing R&D, Consultancy Projects

MOOC's and Digital Learning

- ❖ Registration of faculty on SWAYAM (Study Webs of Active -Learning for Young Aspiring Minds)
- ❖ Development of MOOC's (Massive Open Online Courses) and digital resources

Management Capacity Development

- ❖ Professional Development Training for Management and Faculty at IIM's

Mentoring/ Twinning System

- ❖ MOU signed with MNIT, Jaipur for joint supervision of M.Tech and PhD students and collaborative academic and R&D activities and two way students, staff & faculty exchange.
- ❖ Two way faculty, staff and student exchange programs for training and academic and R & D activities
- ❖ Joint Seminars, academic meetings and conferences for students and faculty
- ❖ Organising Industry partnership for joint R&D, internship and placement activities
- ❖ Joint Advisory for M.Tech/ PhD and consultancy services

Institute Industry Interaction

- ❖ Internship, Industrial visit and industry experts lecture
- ❖ Placement activities

Under TEQIP-III, 8 faculty members have attended Professional Development Trainings (PDTs) at IIMsand 31 faculty members attended one week training on Active Learning at IIT, Bombay. Also, faculty members of college are deputed to attend more than 70 Trainings & Workshop at different NITs, IITs and other premier institutes of country. The 18 faculty members of college are provided DTH connection to view Swayamprabha Channel and participate in online courses of Swayam Portal of MHRD, GOI.The two workshop was organized for faculty and staff at CTAE, UDAIPUR on GST rules and Procedures and on Outcome based education.

The Institute conducted 3 weeks Induction programme (for newly admitted 1st year students). About 56 students are deputed for internships at IITs, MNIT, Jaipur and other institute of excellence. More than 50 PG

and PhD students are deputed for paper presentation in various seminars and conferences.192 students are deputed for academic fest, and workshops in their subject areas. 15 research scholars are provided assistantship in 2017-18. The students are also taken to ISRO, Ahmedabad under Industrial visit.

The institute has also participated in global student Learning assessment (SLA) conducted by Stanford university, USA for 1st and 3rd year students and faculty taught them in department of Electronics and Communication Engineering and Computer Science and Engineering.

The project is supporting final year students by providing 200 hrs of specialized coaching by TIME Secandrabad for employability skills upgradation. The project is also conducting exclusive GATE training classes from expert mentors for all branches. The number of domain specific workshops and personality development programs are continuously supported for students of all branches.

Under this program MOU is signed with MNIT, Jaipur to conduct exchange program for students and faculty of CTAE and vice versa. MNIT will provide access to all academic facility to students and faculty of CTAE. We are in process of making arrangement with various IITs and NITs for exposure visits and working in their labs.

The TEQIP has provided 20 Assistant Professor (contract) in various engineering departments to fulfil faculty shortage during project tenure and another 15 more Assistant Professor (contract) are likely to be provided by NPIU shortly. The college got its 5 UG and 5 PG programmes accredited by NBA in 2016and 2017 respectively for 3 years. At present, expenditure of about 4.5 crore was made in procurement of goods and services and academic activities under project.

Dr. Mahesh Kothari
TEQIP Co-ordinator

CTAE Hostels

College of technology, a premier government Engineering college of Rajasthan has 9 hostel including one Scientist hostel with a capacity to accommodate approximately 700 students/scholars. Out of these nine hostels, six hostels are Boys hostel namely AN Khosla, MV, Netaji Subhas Chandra Bose, PG, GSM and Dr. Homi J. Bhabha and 2 are girls hostel namely CTAE Girls hostel and Ganga Girls Hostel to accommodate undergraduate, postgraduate and Ph.D students. Scientist hostel is meant to provide temporarily accommodation facility to visiting scientists, scholars, students and parents. In the last two years, many renovation activities are carried out and a number of student amenities are created in each hostel. Presently, each hostel is associated with following facilities

1. 250 lph, RO plant with water cooler to provide clean drinking water. To provide cool drinking water to the students,the water coolers of 150 LPH capacity has been installed this year in all Boys and Girls hostels and installation of water coolers of 80 LPH is under process.

2. Solar water heater to provide hot water during winter season

3. Each hostel room with Kota stone flooring is equipped with a cot, table and chair, Led tube lights and fan.

4. New copper wiring is laid down in every hostel with Led tube lights in verandah and Led Street lights in and around hostel boundary.

5. Well furnished mess to provide breakfast, lunch and dinner to the stakeholders at a affordable rate.

Swachta Abhiyan in GSM hostel

6. Common room with smart TV facility for entertainment purpose.

7. Wi-fi facility to reach internet at each room.

8. Well equipped Hostel office to carry out official work related to Hostel.

9. Chowkidwar & guard person to provide security to the students.

10. Two 125 kVA DG set , one for boys and other for girls hostel has been installed to meet out the emergency situation during power failure.

Address of Hon'ble Prime Minister on Swachta Abhiyan- Residents of GSM hostel

11. Electrician, plumber, carpenter are available during working hours to resolves the issues related to electricity, sanitation, furniture etc in the hostel .

12. Cleanliness is being carried out in and around each hostel every day through sweepers to safeguards the health of the students.

13. Closed Parking facility is provided in each hostel to keep their vehicles safely.

14. Playground facility is there in each hostel to carry out sports activity during leisure time.

In addition a lot of civil, electrical, sanitation etc renovation work is still going in each and every hostel to provide more and more facilities to the students in order to create a home friendly academic environment in the hostels. The renovation work of ANK, MV and GSM hostel was carried out in which flooring of room and other utility area has been changed. The renovation of Scientist hostel was also carried out to provide comfortable stay to the guest. In all the hostel swachta Abhiyan was also carried out to clean the hostel premi ses.

Renovation of Scientist Hostel

Renovation of MV Hostel

Swachta Abhiyan in GSM hostel

Dr. P. K. Singh
Chief Warden

Technology Park

Technology Park is about 14 hectare area representing the topography of the Mewar reason. Out of 14 ha about 4 hectare has been developed as orchard/cropping vegetables.

It has demonstrated following technologies at the park

1. Naturally ventilated poly house (size 1000 sq. m.)
2. Naturally ventilated polyhouse (Size 500 sq. m.)
3. Shade net house (1000 sq. m.)
4. Small poly shade net house (18 sq. m)
5. Recharge pond (50000 cu. m)
6. LDPE lined farm pond (1000 cu. m)
7. Oil Palm Orchard
8. Mango Orchard
9. Guava Orchard (Dense cultivation)
10. Pomegranate Orchard
11. Lemon Orchard
12. Laxmi Taru (Simarouba Glauca) Plantation
13. Custard Apple Orchard
14. Rose cultivation

Oil Palm orchard at Technology Park

In addition to above technologies, all the farm is under micro irrigation through drip/sprinkler irrigation. Most of the crops are taken on raised bed with mulch / soil less cultivation. Many M.Tech and Ph.D. students undertakes research work at Technology Park for their project work. Revenue of Rs. 137415/- was generated through Technology Park.

Cultivation of Capsicum under Polyhouse

LDPE lined Farm pond for Rain water harvesting (under construction)

Polylined Farm Pond : A Boon for Rainfed Agriculture

Cultivation of Cucumber in soil less media under Naturally ventilated poly house

Round the year cultivation of tomato under naturally ventilated polyhouse

Cultivation of cucumber under naturally ventilated polyhouse

Dr. S. R. Bhaker
Co-ordinator

NewGen Innovation and Entrepreneurship Development Centre

NewGen Innovation and Entrepreneurship Development Centre of the college completed one year in October 2018 and entered into second year of its functioning. The centre is supported by National Science and Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (DST), Government of India, New Delhi through its nodal agency Entrepreneurship Development Institute of India (EDII), Gandhinagar, Gujarat. Through the centre, financial support is extended to the new and innovative ideas of the students of this college for development of technologies and prototypes and also to take it to a level of commercial venture as entrepreneur. The centre provides co-working space to innovators and mentorship from experts and professionals as and where needed.

Infrastructure and Facilities

The centre is operating in a building near Sanchar Kendra, MPUAT with about 500sqm build up area, housing a seminar hall and co working spaces equipped with all furniture and 15 Desktop PCs for innovators alongwith reprographic facility. 15 cubicles and rooms are also available in the old building for the student teams taking startup projects.

Participation in Events

Under the leadership of the Chief Coordinator of the centre Dr. S. Jindal, the Centre is encouraging innovativeness and creativity among the students by organising Idea Competitions and supporting participation in Smart India Hackathons. Students have participated in SIH-2017, 2018 and 2019 in good numbers and reached final stages. A total of Nine teams participated from CTAE out of which 3 qualified for final round in Hackathon-2017 and Digifest. All three teams got cash prize/appreciation certificate/appreciation. 19 teams (around 100 students) participated in Smart India Hackethon-2018 and 4 of these cleared first round. This year, in SIH-2019, total 22 teams participated with 34 ideas (17 in hardware category and 17 in software category). Two teams in Software categories are selected for participation in final round. Hardware category events are due.

A number of sensitisation workshops and lectures were organised on aspects of Innovation, IPR and preparing Business proposals. For year 2018-19, 21 projects by student innovators are shortlisted for support by NewGen IEDC.

For industry interaction, college organised 'Laghu Udhyog Sammelan' at CTAE, Udaipur in association with Laghu Udhyog Bharati.

Institute has also formed Institution Innovation Council (IIC) under MHRD's initiative and first leadership talks organised by MIC are being attended regularly by many students and faculty of the college.

LIST OF PROJECTS COMPLETED IN April 2018 - October 2018

SN	TITLE OF PROJECT	STUDENT INNOVATOR	FACULTY MENTOR
1	Eco-Friendly water Retention Polymer	Mr. N.L. Gurjar	Dr. S. M. Mathur
2	Design and development of Solar cum Biomass Powered Hybrid Dryer	Ms. Katakam Anoosha	Dr. Sudhir Jain
3	Design and development of screw press dewatering machine for biogas slurry	Ms. Maduri Mohan More	Dr. Deepak Sharma
4	Development of Quinoa polisher	Mr. Sagar M. Chavan	Dr. N.K. Jain
5	Development of portable low cost compound cattle Feed pelletizing machine	Mr. Shrinivasa D.J.	Dr. S.M. Mathur
6	Development of Multi-Crop Power Weeder	Mr. Jinukala Srinivas	Er. S.S. Meena
7	Design and Development of a Portable Corn Roaster cum Boiler for Indian Street Vendors	Mr. Mandala Tanmay	Dr. P.S. Champawat
8	Development of Watermelon Peeler cum Pulper for Value Addition	Mr. Vishal Kumar	Dr. S.K. Jain
9	Innovative mini E-solar energy inventions/products	Mr. Sujit Kumar	Dr. V. Dave

Cattle Feed Pelletizing Machine

Eco-Friendly Water Retention Polymer

Quinoa Polisher

Mini E-Solar Energy Products

Watermelon Peeler Cum Pulper

**Solar Cum Biomass Powered
Hybrid Dryer**

Screw Press Dewatering Machine For Biogas Slurry

Portable Corn Roaster Cum Boiler

Multi-Crop Power Weeder

DETAILS OF THE PROJECTS SELECTED FOR 2018-19

Sr. No	Project Description*	Student Team
1	Abrasive Flow Machining System	Dashrath Sharma
2	PNEUMO-Electric Vehicle on Single Wheel	Yogesh Sharma
3	Fruit Harvesting Laser	Abha Gupta
4	Nature Friendly Corrugates	Divyanshu Gurjar
5	Nitrate Detector	Riya murdia
6	Blind Stick-Smart stick with audio feedback and SOS button	Subham Suthar
7	Iswadhyay	Jayneet Porwal
8	Soil Salinity and pH Detector	Rahul Laxkar
9	Recyclable Fused sand filter capsule for domestic water purification	Jayesh Kothari
10	Design of an IOT based real time soil moisture & fertilizer monitoring prototype.	Priyanka Patidar
11	Design of a multi-sensor cloud IoMT based Secured Health Monitoring System for coma Patient.	Surabhi Joshi
12	The Green Bricks	Mahima Chouhan
13	Multifunctional Hammer Kit	Hardik Longakshi
14	MOBET	Ashish Khandelwal
15	All Inclusive Tourism Platform	Anchal Nandwana
	Waitlisted Projects	
16	Smart Dustbin	Vishwajeet Singh Jhala
17	Technology for Commercial Hydroponic farm	AdhishiAhari
18	Plant Irrigation and Nutrients Supply Sensing Device	Nikita Akhawat
19	Energy Efficient Street Lamp Post	Anusha Mundra
20	Railway Track Surveying with Sensors, Controlled by Wireless Communication	Shiv DuttBarhat
21	KHETIBOT (Automated weed machine)	Preety Purohit

Dr. S. Jindal
Chief Co-ordinator

TePP Outreach cum Cluster Innovation Centre

The College of Technology and Engineering, MPUAT, Udaipur is one of the centre of TePP Outreach cum Cluster Innovation Centre (TOCIC) sponsored by the Department of Scientific and Industrial Research, New Delhi. The mandate of the centre is to screen out good, innovative commercially viable proposals, which could be funded by Ministry of Science and Technology, Govt. of India. TOCIC Udaipur is judged as excellent Center in 2017-18.

PRISM (Promoting Innovations in Individuals, Start-ups and MSMEs) scheme aims at to support individual innovators which will enable to achieve the agenda of inclusive development - one of the thrust areas of Indian Government. It would also provide support to institutions or organizations set up as Autonomous Organization for development of state-of-art new technology solutions aimed at helping MSME clusters.

Who can apply

Any Indian citizen having innovative idea and wish to translate their idea into working prototypes/models/processes; public funded institutions or organizations viz. Autonomous Organizations or Society registered under the Societies Registration Act, 1860 or Indian Trusts Act, 1882 engaged in promotion of innovation.

Thrust Areas

The proposals shall preferably be considered in the following focus sectors: Green technology, clean energy, industrially utilizable smart materials, Waste to Wealth, Affordable Healthcare, Water & Sewage Management and any other technology or knowledge intensive area.

Last year TOCIC, CTAE has scouted 28 proposals from individuals and out of them following three proposals were sent to DSIR for support:

1.   Development of Bael fruit Pulp Extractor was submitted by innovator Mada Sai Srinivas, of Udaipur.

2.   Development of Light Weight Portable folding stool was submitted by Mr. Sachin Bhardwaj of Bharatpur.

3.   Zero Liquid Discharge (ZLD) of Textile Dyeing Industry Effluent with Cost Effective Technology submitted by Mr. K. K. Garg of Kota.

Award and Reorganization:

Blood Component Expressor developed by innovator Mr. Omprakash Beniwal with PRISM support and automated by Pyrotech Electronics Ltd. Udaipur was selected for Excellence in Innovation Award instituted by Electronic Industries Association of India (ELCINA). The manufacturing rights were transferred to Pyrotech whereas the marketing right was given to Hindustan Life Care Limited, Trivandrum. Pyrotech Electronics Limited Udaipur has applied for the 43rd ELCINA-EFY awards 2017-2018 as a manufacturer and got the second prize.

Presently following projects are running:

S. No.	Particulars	Name of Innovator
1.	Hyper Xs- a thumb wearable device with distributed gesture recognition architecture	Mr. Sudesh Patil
2.	Development of e-yarn counting device for textile sector	Mr. Sahab Saran Satsangi
3.	Development and testing of vaccum insulated panels for high temperature storage	Mr. Anik Desai
4.	A novel filtration system for water filtration containing paper fibres and filler material to achieve filtered water containing less than twenty ppm suspended solids.	Mr. Anand Khelkar
5.	Development of Inflated Solar Dryer and Chilli Destalking Machine	Mr. Srinivas G
6.	Design and Development of Eco Friendly RFID tags	Mr. Ajay Kumar Singh Yadav
7.	Eco Friendly Health Pro Reliable Water Purifier & Enhancer	Mr. Subhojit Roy
8.	Automated Wheel Chair for Physically Challenged	Dr. Priyanka Mishra
9.	"Smart Dustbins initiative in line with "Swachh Bharat Abhiyan"	Dr. Bhavana Mathur

Water Purifier developed by innovator Mr. Subhojit Roy

Elcina Award to TOCIC, Udaipur

Dr. S. K. Jain
Co-ordinator

Technology Business Incubation Centre

The Government of Rajasthan in the year 2016 established 7 Technology Business Incubation centre (TBIC) in different government engineering colleges of Rajasthan. College of technology and engineering was one such institute. The TBIC is a venture of institutes to promote and bolster a new technology intensive enterprise. The objective of TBIC are

❖　Creation of Technology Based incubates on continuous basis.

❖　Help to create value added jobs and services.

❖　Fostering the entrepreneurial spirit.

❖　Create Awareness about Technology Incubation and Commercialization of R & D products and processes.

❖　Developing tools for Technology Transfer.

❖　Promote small & medium industries.

❖　Assistance to existing incubatees by way of specialized services e.g patenting, "Copyright" arrangement of venture capital, helping towards marketing of products & processes

College of technology is running this unit in a successful manner for last 3 years. The institute has created a space for 15 startups which are referred as co worker. The centre is not only mentoring, motivating and technically guiding the co workers but also providing basic amenities like water, electricity, unlimited internet & security. The first startup joined this centre in April 2017 and from then onwards, the number of coworkers are increasing day by day. Presently, 10 coworkers are working in different fields like energy, information technology, agriculture, medical etc. One of the CTAE students namely Mr Narayan Lal Gurjar has also joined this centre with his startup product eco friendly water retention polymer. Mr Narayan lal Gurjar has been awarded by many national (AICTE, Government of Rajasthan, SIDBI) and international agency (Germany, Japan)for his innovative product. Recently, he has been invited by Japan as a statup with full financial support.

The centre organized different programmes to motivate CTAE students as well as co workers to enter into the field of entrepreneurship. This year the centre has organized two Department of Science & Technology sponsored Enteprenurship Awareness program for CTAE students and trained near about 150 students. The centre has also organized three programmes namely Innocity booster program to the motivate and encourage startups to continue in this field. Experts of business field are being called to share their experience with the startups and students. The centre has generated revenue of more than 2.5 lakhs till date.

Thus, the TBIC of CTAE besides providing a host of services to new enterprises also facilitate an atmosphere congenial for their survival and growth.

Dr. Vikramaditya Dave
Co-ordinator

Club Reports

Programming Club

Time Schedule of Programming Club

Club Name	Day	Venue	Time
Android Development	Tuesday	Client Server Lab	9 AM - 10 AM
Machine Learning	Tuesday	II Year Classroom	9 AM - 10 AM
Web Development	Tuesday	III Year Classroom	9 AM - 10 AM
Competitive Programming	Saturday	II Year Classroom	02 PM - 04 PM

Projects Completed in Programming Club

Sub-Club	Project
Android Sub-club	A simple Coffee Shop app
	A basic weather app
Machine Learning Sub-club	Cancer Detection
	Recommendation System
	Property Value Prediction System
Web Development Sub-Club	Skill Share
	Web platform for registration Management

Participants

Club	Participants
Android Sub-club	10
Machine Learning Sub-club	25
Web Development Sub-Club	20
Competitive Programming	20

Python Hands-on in Club Activity (16 Feb 2019)

Machine Learning Sub-Club

Competitive Programming Sub-Club

Android Sub-Club

Web Development Sub-Club

Club Introduction Event

Electronics & Robotics Club

A Report ofBoot Camp onESP8266-Nodemcu held under Electronics and Robotics Cub

Place of Workshop	Department of Electronics and Communication CTAE, Udaipur
Date	11th Feb, 2019
No. of Participants	50
Coordinated By	Dr Sunil Joshi Coordinator Electronics & Robotics Club Mr. Deep Manwar Sub-Coordinator Electronics & Robotics Club
Topics Covered	• Brief Introduction to ESP8266-nodemcu. • Interfacing LEDSs with nodemcu and generate various blink patterns using delay routines. • Interfacing PIR motion sensor with nodemcu. • Interfacing LPG sensor with nodemcu • Interfacing Ultrasonic sensor with nodemcu • Introduction to IOT

Session details

S. No	Content delivered	Month
1	Installation of Arduino software and hands on experience with Arduino module like interfacing of LCD, LED, etc.	Jan, 2019
2	Wired robotic car.	Jan, 2019
3	Bootcamp on ESP8266 nodemcu, installation of its libraries and perform some example projects.	Feb, 2019
4	LED control using Webserver with nodemcu.	Feb, 2019
5	Wi fi controlled wireless robotic car.	March, 2019
6	Explanation of ESP32 module and installation of its libraries.	March, 2019
7	Preparation for taking part in Robo race	March, 2019

Various activities of club

Theatre Club

The theatre club has been started with the objective to improve personality of an individual through different theatrical activity.The concept of theatre was made understood to the students through different lectures.

Theatre is a team activity hence the fore most important is to learn that how to work in a team .The team building activity was conducted through a blind folded game.This game inculcate the importance of team work and importance of 3 C I.e. communication , coordination and cooperation.In future plan the special activities will be done with renown persons from theatre group.

Wellness Club

Wellness club was established at CTAE, Udaipur with the intention to make overall development of the students. To achieve this objective committee of the following persons were formed:

1. Dr. SR Bhakar, Professor, and Convenor Wellness club.

2. Er. Ranveer Singh Shekhawat, Incharge, Yoga

3. Sh. S.B. Sahay, STA, Incharge Games

4. Sh. J.P. Mathur, Caretaker, CTAE

An office of wellness club has been established at ANK hostel and 26 students have been registered for this purpose. Following activities were undertaken

1. Lecture cum training from Sh. MADAN GOVIND DAS from ISCON, Udaipur on 27. October, 2018.

2. Yoga classes of the students in ANK hostel

3. Yoga classes in CTAE Girls Hostel.

Efforts will be made to increase activities during 2019-20.

**Spritual lecture in progress by
Sh. Madan Govind Das from ISCON, Udaipur**

Energy Club

Energy club, CTAE was established in 2018 with the main objective of creating awareness among students towards sustainable use of energy. The club is running under the guidance of Dr. Sudhir Jain, Professor and Head, Department of Renewable Energy Engineering, CTAE, Udaipur. Mr. Laleet Jawale is working as Secretary for this club. During this academic year, with the keep in mind of major goal to propagate and promote the use of renewable energy resources, this club organizes several activities like seminars, visit and expert lectures etc. for students.

Students were interacted with Departments activities, ongoing projects and renewable energy gadgets. They also participated in the farmers fair held at Department of Farm Machinery and Power Engineering, CTAE on date 15.02.2019.

Interaction with Department Activities

Participation in Farmer's Fair, CTAE,

Lectures delivered during Bhilwara Visit

Biogas plant visit at DFRS Bhilwara

A visit of biogas plant was also conducted at DFRS, Bhilwara on date 18.01.2019 for demonstration of power generation and bio-CNG production through biogas. Mr. Manindar Jit Singh, CEO, Biofuel Authority, Jaipur, GoR, was invited as guest. Mr. Singh introduced about the ongoing schemes in bio-energy sector. Mr. Singh also shared his vast experience in biodiesel production sector and related government schemes.

Energy club, CTAE organized a motivational talk titled "Acceptability of Renewable Energy in near future" on 12/04/2019. Dr. A.K. Kurchania was invited as the key speaker. He addressed the rising need and future prospects of renewable energy sources in India and also motivated students to involve the projects on renewable energy in their academic activities.

Creative & Fine Art Club

Club coordinator : Dr. A. K. Chittora

Club sub-coordinator : Ms. Nitika Gulati

❖ **College Ke Super-Star Event by Radio City:**

Radio City conducted a competition "College Ke Superstars" on 27th Septmeber, 2018 in which students exhibited their talent of singing, dancing, mimicry and stand-up comedy. One winner from each category was awarded certificate and prize. The event took place in collaboration with the Creative and Fine Arts Club in the First Year Instructional Block.

❖ **IDP-Sponsored Expert Lecture:**

An expert lecture by Prof. P.K. Dashora, Ex-Vice-Chancellor, Kota University was organized on 2nd February, 2019, in collaboration with Creative and Fine Arts Club. It was presided over by Prof. Ajay Kumar Sharma, Dean, CTAE. The theme was Creativity in Education, and Prof. Dashora, with his years of experience, inspired the students to excel in life by broadening their horizons and thinking out-of-the-box solutions to problems. It was an interactive session towards the end of which, he also gave the students tips and tricks that would help them in their career.

❖ **IDP-sponsored PowerPoint Presentation Competition:**

The expert lecture was followed by a PowerPoint Presentation Competition for First Year Students. 22 students were shortlisted for this round and presented their perspectives on Creativity in Education. Every participant was given 5 minutes for the presentation, in which they showcased a plethora of new ideas, using audio-visual aids. Three winners were chosen on the basis of their content and delivery of the presentation.

Photography & Cine Club

To enhance the creativity, presentation skills and personality development of students, College of Technology and Engineering under the dynamic leadership of Dean Prof Ajay Kumar Sharma, has started some clubs in the college. One such club is Photography and Cine club. The objective of this club is to enhance the creativity and presentation skill of the students through technological equipment like video & camera. This skill is very useful in preparing project thesis (B.tech) and PG thesis (M.tech & Ph.D students). Further, it will bring getup in the presentation slides of the scholars during their seminar and conference presentations. This type of skill is the demand of today's job sector either in the industrial world or government sector. Hence, this will increase their employability opportunity in coming years.

The club starts functioning from November 2018 after the issue of order from Dean CTAE. Applications were invited from students of CTAE and about 60 students from different branches and class enrolled for this club. A committee of student was formed to carry out the different activities of the club and Mr Chitarnsh Nagda, III year Electrical student is being elected as a student secretary unimaously for this year.

A social media group is being formed of the enrolled student where members used to upload their creative snaps. In order to provide training to the members, two ICAR sponsored workshop of two days duration each were organized during the month of march 2019.

Members of this club took photographs of different academic and cultural functions of the college. Members of the clubs also participated in different photographic competition held at premier institutes like IIT, NIT etc. Recently Mr kartavya Nagori has won the second prize in a photography competition held at IIT Mandi.

A lot other activities has been planned in the coming days for the club to enhance the creativity and skill of the students.

Music and Dance Club

Human being has great potential to work and challenges ahead in the developmental world. The engineering and agricultural education students are putting their hard efforts to become professional technocrats. The globalization, changing work environmental conditions and work culture are resulting into work hard and increased mental stresses. The aim of this Club is to provide artistic environment, develop students' social sensitivity, and increase creativity through music and dance. This Music & Dance club engage the students in the collaborative process; will strengthen students' creative skills in live performance through various musical and dance performances and technique. The unique, challenging and diverse this clubhelps in mental stress relieving and improving student's creativity and even recharge them for better performance.

Club Activities:

The following are Activities of Music & Dance Club

❖   Introduction of musical instruments, types and application

❖   Technical details and specifications of musical instruments

❖   Role of music in achieving mind concentration

❖   Confidence enrichment through singing for better presentation style

❖   Introduction of dance and types of dance styles and their presentation

❖   Role of dance in enhancement of body gesture for effective presentation

❖   Techniques and tips on effective singing and dancing

Adventure Club

The adventure club of CTAE, MPUAT, Udaipur actively organized different activities during 2018-19, Total 367 B. Tech., M. Tech. and PhD students of the college are registered under AdventureClub.The students participated in many activities and programmes throughout the year. A few of them are given here:

1. **Maharana Pratap University of Agriculture and Technology Foundation Day Celebration**

2. **Plants adoption and caring by Adventure Club students**

Entrepreneurship and Innovation

Advisor : Dr. S. Jindal, Professor (Mechanical) and Coordinator NewGen IEDC

Coordinator : Dr. M.S. Khidiya, Assistant Professor (Mech)

Student Coordinators : Pulkit Thakuria, Narayan Lal Gurjar, Ashish Aryan, Hardik Longakshi

The Entrepreneurship and Innovation club is formed to create awareness among students regarding innovation and entrepreneurship opportunities for technical graduates. About 100 students registered for the membership of the club. The club aims at providing opportunities to explore creativity by way of ideation and novel solutions to the problems faced in various sectors of economy. The students are made aware about the events of this nature and various Hackathons organised by different organisations. An awareness workshop was organised by the club in association with NewGen IEDC on 15th May 2019 for the club members in the department of Mechanical Engineering.

GATE

Department Wise Details

BRANCH	TOTAL STUDENTS FINAL YEAR	REGISTERED	QUALIFIED
Agriculture Eng.	56	52	22
Civil Eng.	52	50	9
Computer Science Eng.& IT	102	90	21
Electrical Eng.	50	49	17
Electronics and Communication Eng.	45	33	7
Mechanical Eng.	47	46	9
Mining Eng.	27	26	3
Total	379	346	88

Students Selected in Prestigious Institutes

Shiv Dutt Barhat of Electronics and Communication Engineering of CTAE got selected for IIM Ahmedabad PGP 2019-21

Noopur Sharma of Electronics and Communication Engineering of CTAE got selected in IIM Udaipur for PGP 2019-21.

Varsha Santwani of Computer Science and Engineering of CTAE got selected in NITIE, Mumbai for PGDIM 2019-21.

Data is King

In the world we live today, data is king. Many economists believe that 'data to this century is what oil was for the last century'-a driver for growth, change, and success. The size of the data economy of Germany accounts for €108.3 billion, creating 1.95 million jobs, and has an untapped potential of €87.9 billion. The data economy contributes $1 trillion to the US economy every year. The numbers look promising and encouraging enough to have strong faith in the power of data.

According to a May 2018 Forbes article, the amount of data created every single day amounts to 2.5 quintillion bytes. To put it another way, almost 90 percent of the data in the world was generated over the last two years. Now, one can imagine the speed and volume of data being generated through innumerable sources like IoT, sensors, wearable devices, tweets, YouTube videos, mobile communications, chats, pictures, emails, blogs, Skype, print media, TV, smart devices, and so on. To give some statistics, Google processes more than 40,000 searches every second (ie, 3.5 billion searches per day), 456,000 tweets are sent and 4,146,600 YouTube videos are watched per minute; and every minute, 154,200 Skype calls are made, 156 million emails are sent, 16 million text messages are written, and 15,000 GIFs are sent via Facebook messenger. On top of this, we have humongous amounts of data generated through platform-driven services like Uber, Venmo, and Spotify. Precisely, big data is getting bigger and bigger day by day in volume, velocity, variety, veracity, and 'value'.
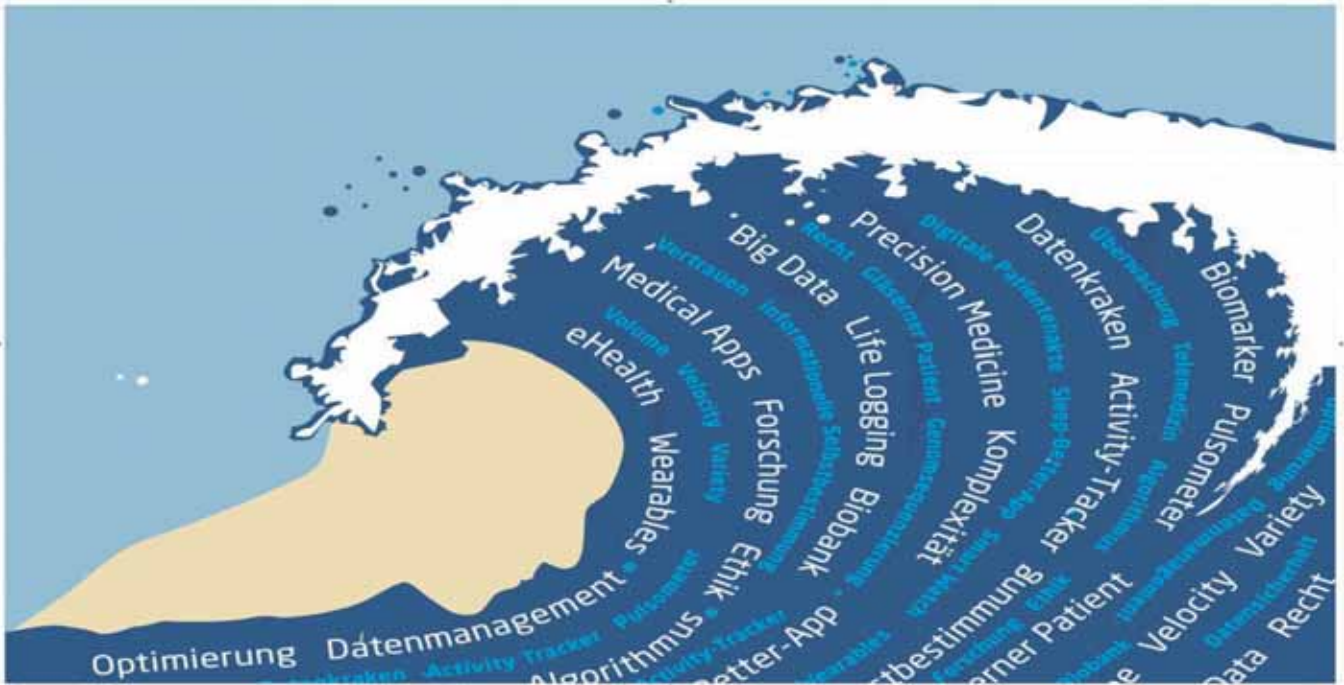
According to estimates, by 2020, 15 to 20 percent of global GDP will be based on data flows. It is believed that by 2022, the size of the digital economy in India will be approximately $1 trillion, and it could constitute almost 50 percent of the entire economy by 2030. The Indian government's thrust on Digital India and ecommerce space are the building blocks for this. In such a scenario, entrepreneurs and even established businesses constantly look out for new opportunities and unique value propositions for customers. Paytm, Ola, and BigBasket are a few examples. With all this abundance of data getting generated all around, the vital question that a decision-maker has in mind is: how to make sense of it? How this massive data (structured and

unstructured) generating from multiple touchpoints in different formats, offers insights into the products or services offered by the company and help managers sense the pulse of customers, which may enable them to make the right move at the right time?

Turning data into insights

It often happens that organizations have a lot of data (internal as well as external collected through a range of sources), but they do not know how to process it to gain value. Habitually, they collect data they themselves do not know what to do with. At times, either it is a mandate from the head office or a regular, not-so-required exercise. Many a time, this job is outsourced to a market research agency, supposedly an expert in converting data into insights, without expecting much in return. However, if followed correctly with mindful efforts, the journey of converting data into insights can be an enriching exercise for any organization. Leading to a data-driven discovery-finding hidden patterns and unusual correlations-this may help businesses and decision-makers know the unknown.

Irfan Kamal, Senior Vice President, Social@Ogilvy in his Harvard Business Review article 'Metrics are easy, insight is hard', argues that in contrast to abundant data, insights are relatively rare. In the context of marketing, he suggests a four-step marketing data-centered process: 01 collect, 02 connect, 03 manage, and 04 analyze and discover. He further reasons that brands and companies that are able to develop insights from any level of data will be winners. Thanks to disciplines like data science, business intelligence, and big data and analytics, organizations are equipped with a variety of tools to map data with business requirements and outcomes.

There have been successful cases where data and intelligent techniques (derived from past data and experiences) put together have solved problems in mapping crime, disaster management, marketing campaigns with greater accuracy, predictions with respect to consumer demand/preference and positioning offerings accordingly, providing government schemes and services more effectively, and many more.

Data privacy challenges

It is good to have a heap of data to take better and informed decisions for your business and customers. But, at times, companies collect too much of user data (that too without their consent) in the name of providing them convenience-for example, serving relevant ads and targeted promotional communications. In the digital age, many believe data privacy is a myth. Tim Cook, CEO of Apple Inc., in his keynote speech at the 40th International Conference of Data Protection and Privacy Commissioners held in Brussels in October 2018, emphasized the fact that data itself is being weaponized against people and societies, arguing that 'privacy is a fundamental human right' and that trade in digital data has exploded into a 'data industrial complex'. Organizations need to be cautious while collecting users' data and while sharing it with third parties. Cook strongly voiced the need for a privacy law that prioritizes data minimization-minimum users' data to be collected by companies, transparency, right to access, and right to security. In the digital economy, which thrives on users' data, privacy and data protection are of paramount importance.

Hritik Kumar Sharma

II Year, CSE

Never Give Up

Obstacles are often stepping stones

Ria was very excited and nervous. Anxiety was taking over her. It was a rare thing to be nervous for a confident girl like herself. But that day was also rare, it wasn't just another day. She was going to perform on a national platform, that too in front of her inspiration, notion's top journalist. And if she performs well today, it will be a huge for her career. She was invited to speak about her new book, it was only her 2nd book and she was just an engineering student.

Anyway she gathered all her courage and went on stage. As she held the Mike and started speaking, some technical error occurred and Mike started making weird sounds. All the eyes were staring at her. The speech which she was preparing for a month, she messed it up. She forgot main points, mumbled once or twice and she even pronounced the name of her book wrong. Can someone be more unprofessional?

Poor girl Ria. All her dreams and expectations shattered. She didn't performed at all for 3 months. She even stopped writing.

It took some time to heal, but she got back into the game and wrote another book. she researched all about stage fear and anxiety when a person is in pressure. She also figured some ways to handle mental stress. All because she experienced the same. Wouldn't she had failed, she may have written a good book, but her failure, her pain gave her greater strength. This book completely changed her life and double the copies of her previous book was sold. And she became youngest writer to have a national bestseller.

She had two choices when she failed. Either to cry and give up and start something new, to quit or to stick to it, work harder, learn from your mistakes and rise again stronger and better. Life is a journey, and it will continue till you continue to breathe. It's totally upto you if you stop at an obstacle or change it to be your stepping stone towards your success. Journey of every person is unique, no matter how many times you fail, never compare yourself to anyone. And no matter how many times you succeed, never stop moving ahead, because journeys are all about keep going on.

Ami Sharma

I Year, AG

Astha Saruparia
I Year

Anurag Singh
I Year

Tips for Personality Development of Student

What is Personality Development for Students

Personality Development is the process of developing a set of characteristics and traits which contribute to the overall personality of a person and make you the best version of yours. The whole process of this development takes place over a period of time. Bringing about a positive change in oneself takes a considerable amount of time.

Build Self-confidence

Self Confidence mean in simple words is to believe in yourself. It is an attitude towards the life, towards the respective situation you're being in. Your confidence reflects your character, attitude, and passion. You should be confident about who you are and whatever you do. Being confident will help you to express yourself and stand amongst the crowd.

Improve Your Communication Skills

Communication skill is one of the most important parts of personality. The way you are speaking which reflects that who are you. While talking try to be gentle and polite with your words. English is the international language so try to improve your English speaking. You can read English newspapers and magazines. Always think before you speak and try to use a simple word.

Dress Up Well

A person should, therefore, wear according to the situation and according to how well the attire suits him/her. Good looks no doubt will add to your personality but what matters the most is how you are dressed up. Even a 5'4 guy with a dark complexion can have a good personality if he knows how to carry himself. You cannot climb the ladder of success dressed in the costume of failure. Dressing sense thus plays a major role in personality development for students.

Work on Your Inner Qualities

Personality is not all about looks. So, rather than working on your looks, work on your values, attitude, and behavior. Stay calm, consistent and sincere in adverse situations.

Self - Evaluation

For this start maintaining notes about the personality traits that you need to work upon. Like public speaking, boosting confidence, pleasant personality, helpful nature, socialize, dressing sense and likewise. You need to find out what is it that you need to work on first. Jot them on paper with the date and search what is the best way to learn that skill. Take one trait for improvement at a time, excel in it and then move ahead.

Read, Read and Read

A habit of reading will fetch wonders in your personality. The changes for which you have been trying hard will come automatically within you. It will transform you from within and will help you evoking your inner hidden strengths, from which you yourself were unaware till date. Further reading helps you to do introspection about yourself and when you have the habit of daily introspection, chances are you will evolve as a better human and will lead to personality development with time and regular practice.

Network well

A good personality is the one who can gel well with people from different backgrounds irrespective of the fact whether the connections are of monetary importance or not. A good, close-knit network makes sure that you stay updated and active in your field of work and at the same time gain information of diverse spheres over general everyday conversations without putting in any time into it. In addition, networking exposes you to diversity.

Become a Better Listener

This may not seem like an important factor but it actually is. Remember that in every conversation or interaction there are two sides and you should always concentrate on the other person. Being a better listener makes you have a more likable personality. It is the foundation for effective communication and it can be mastered like all other skills in life. When you are interacting with other individuals, don't listen for the intent to reply, listen to understand and feel.

Bhavishya Sharma
I Year, ECE

Tips for Personality Development of Student

LIFESTYLE and HEALTH

Transformation gets evolution. The greater pace of transformation leads us to evolve, evolve from ourselves. Do you remember what your habits were when you were an infant? Yes, you remember. But do you still carry it with yourself? No, because we modify, we edit, we transform.

In lifestyles advancements of the 21 st century have given major benefactions but had also rigorously changed habits, attitudes, ideology, perspective which aggregate to form a lifestyle. Lifestyle is directly correlated to health. Your lifestyle determines your personal health. We can see around us how the need for infirmary has reached an apex.

How GOOD lifestyle impacts positively on health?

A good routine can affect many factors in your life. Maintaining a good lifestyle is a big task. It requires dedication and continuation. A healthy lifestyle will lead you to work more and with a lot of positive energy. Here are a few positive effects of Good Lifestyle.

Your Mood: Yes! Your mood will show your lifestyle to others and to yourself first of all. Mood will greatly be impacted and will become better day by day once you stick to your healthy lifestyle.

Appearance: Healthy person with no disease on his back, will look good. Lifestyle also includes how you dress, how you walk, how you talk, whom do you spend your time with etc. It is very important for a human to present his best image in front of others.

Longer Life: If you have read all the points, then you can conclude that these will ultimately lead to the long life of your skin, age, eyes, bones, and health. Always stay positive and try to complete your tasks on time.

How BAD lifestyle impacts negatively on health?

Good lifestyle gives you a healthy life whereas bad lifestyle will drastically oppose everything. In today's world, so many people tend to NOT follow good habits, even when they know that these habits are bad. Now we will talk about some of the bad effects of a bad lifestyle.

Negative Fields: Yes, you heard right. If you have bad habits then you will feel lazy, tired, and weak. Not meditating or exercising will lead to mental health problems. This negativity will follow you to your work, home, school, and your friends. It will not be good for them as well. Degraded quality of work or unpunctuality will be the case when this happens. You will also not score well and this will continue with relationships.

Their perspective: People around you would never want worst of you. So to be good to them, and to you as well, you need to work on your body. Give them positive energy not negative. If you act tired or weak around others they will eventually start hating you and this can be very poor for your personal or professional life.

How to improve your lifestyle?

Great things are not done by impulse, but by a series of small things brought together. What you do in the morning affects your whole day. So you can start your day by making your bed. Making your bed will give you positive energy, to keep working throughout the day. Further, you can exercise, meditate, or yoga. These habits definitely will make you happier and you feel yourself. You can follow "EARLY TO BED, EARLY TO RISE". Small choices become actions, actions become habits and habit signifies the way we live our life

Jayant Banshiwal

I Year, EE

She...

all she wanted was her fair share

all she got was looks and stares

all she asked for was to dress the way she wanted

instead she caught all the attention unwanted

her wings were cut of whenever she tried to fly

it's just that patriarchy wouldn't comply

they say she is divine, but still misogyny is fine

shedding inhibition when she walks out free

vague and cynical the society distorts her to an uncertain degree

soft as silk her skin is luminous

cut down deeply by starers so slanderous

her body scented with beauty

roars of discomfort and pity

her silence is not her weakness

but a lariat which tightens with every act of bleakness

her boldness is termed as inadequacy

she is turned down like a gambler's fallacy

when she dares to dream

the world all together becomes supreme

there is an illusion of validity

because the minds are still in captivity

in the dead of the night home seems too far

as the streets reek of creatures demonic and bizarre

there is no bottom to the barrel of graceless

respect and shame seems faceless

now chivalry is limited to a certain few

rest all are charlatans covered in dust and dew

fallen beyond any hope and redemption

we are the culprits for her crucifixion

there will be a wrinkle in time

when she will be in her prime

it will be like taming a turbulent ocean

desperate menace serving commotion

she will break free from the rags that bind her

justice will be brought upon those who were unkind to her

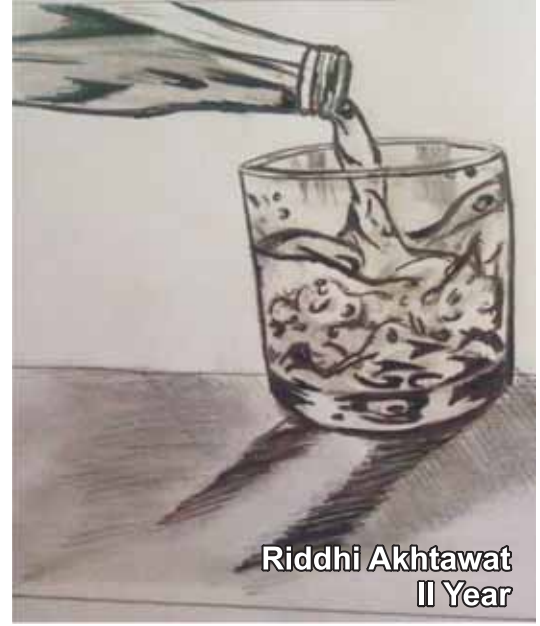**Abhay Samota**

II Year, CSE

Jayant Banshiwal
I Year

ykx

क्या समज पाएंगे तुझे ये झुण्ड में दिखने वाले लोग..
ये तो है बस भीड़ में चलने वाले लोग।
ये तो है हर कोशिश करने वाले पर हंसने वाले लोग..
और फिर उसकी जीत पर जलने वाले लोग।
क्यूँ परवाह करता है इनकी जिन्हे तेरी कोई परवाह ही नहीं..
ये तो है हर रोज़ रद्दी के भाव बिकने वाली लोग।।
कल उस पर भी ऐसे ही हसे थे ये..
और आज उसका ही अनुसरण करते है ये लोग।

Jagdish Meghwal
I Year, EE

Riddhi Akhtawat
II Year

dyoj

¼;gk¡dyoj]dyifregkn;,oaMhu lj]vè;kidkadksl ckfèkr fd;k x;k g£½

कुलवर तुम्ही आदर्श मेरे, आकर उजाला कर दिया
थी रात्रि जिन कोनो मे सारे, वो पुंज पुलकित कर दिया
            आपका आशीष मंगल, शत बार वंदन आपको
            मम हृदय अर्पित हूँ सदा, जो राह दी इस राष्ट्रको
छट छंद छाया छद्म है, काया पलट दी आपने
उन्नत किया ऊसर धरा को, अनु गृह किया जो आपने
            आपके अगणित प्रयोजन, विस्तार है सब राष्ट्र मे
            यशगान गाये कृषि क्षेत्र, सारा गूँजता कुल राष्ट्र मे
है महाराणा आपसे, जिससे जुड़ी अभियांत्रिकी
करते निवेदन आपसे, बस हो अलख कृषि क्रांति की
            नवमार्ग प्रस्तुत हो धरा का , एक ही अनुनय हमारी
            हो मार्गदर्शन आपका , यशकीर्ति हो दुनिया में सारी
 करते प्रणाम हम छात्र सारे,
आप ही गुरवर हमारे, आप ही कुलवर हमारे

fou; dqekj] xkSre dqekj
Ph.D. (SWCE)

हॉस्टल...घर जैसा, घर जैसा

कुछ बनने की चाह में आए थे घर छोड़ के,
गलियों से रिश्ता और माँ का दिल तोड़ के।
छोड़ आए थे बचपन के यार सारे,
वो क्रिकेट की बॉल और शाम के चौबारे।
छूट गया था स्कूल तक साइकिल से रेस लगाना,
और छुट्टी के दिन दोस्तो के घर जाना।

और एक वो भी तो छूट गई थी वहां..
जिस से रोज़ आँखो–आँखो में बात होती थी,
जिसके बिना न दिन ढलता औऱ
न ही सुबह की शुरुआत हुआ करती थी।

अब छोटे से बने एक कमरे में रहते है,
कोई पूछे तो बस उसी को ही घर कहते है।
माँ के हाथों में कुछ बात तो है,
वरना.. यहाँ भी खाना बनाने वाले हाथ ही तो है।

माँ की रोटी की याद बहुत आती है,
मगर क्या करे? ये उम्मीदें बहुत डराती है,
बाबा के साथ बाजार जाना भी बहुत याद आता है,
मगर क्या करे? यादों से कहा घर चल पाता है।

अकेलेपन ने इस इंसान को भीतर तक खाया है,
इसलिए अब रूह नहीं खोखलापन है और
जिस्म बस एक साया है।
आने वाले सालों में ये रूह भी जल जाएगी,
समय के पांसे से ये ज़िन्दगी फिर हमे खल जाएगी।
जलता रहा यूँ ही तो शायद कुछ बन भी जाऊँगा,
पर जो खो दिया मेने इन सालो में घर छोड़ के....
में वापिस कहाँ से लाऊँगा.....
में वापिस कहाँ से लाऊँगा.....

हमांशु लखेड़ा
I Year, AE

कॉलेज के टीचर

ये जेबों में पड़े हमारे पैसे है,
वक़्त – बेवक़्त जो काम आये ये एसे है,
तूफानों में जलने वाले दिये जैसे है,
हमारे कॉलेज के टीचर कुछ एसे है ।

आग की दरिया में तैरना सिखाते हैं,
झुकी हुई आखों को असमान दिखाते हैं,
रेगिस्तान में बरसती बारिश जैसे है,
हमारे कॉलेज के टीचर कुछ एसे है ।

ये डूबती कश्ती को पार लगते हैं,
बंजारों को अपनी मंजिल तक पहुंचाते हैं,
पवित्र गंगा के साहिल जैसे है,
हमारे कॉलेज के टीचर कुछ एसे है ।

ये हैवानों को इंसान बनाते हैं,
फिर इंसानों को भगवान बनाते हैं,
जन्नत की और खुलते दरवाजे जैसे है,
हमारे कॉलेज के टीचर कुछ एसे है ।

ये खुद की कमर तोड़ हमे उपर उठाते हैं,
अपनी सफलताओं को हमारे सर सजाते हैं,
इन्सानों के शरीर में वरदान जैसे है,
हमारे कॉलेज के टीचर कुछ एसे है ?

साहिल बालियान
I Year, CSE

Charu Singh
I Year

Vinay Mohanpuria
III Year

Vinay Mohanpuria
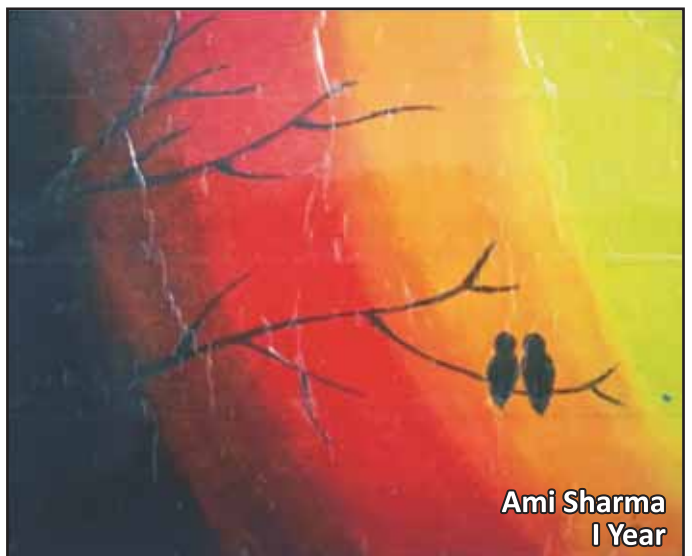III Year

Vijay Teli
II Year

Ami Sharma
I Year

Prachi Purbia
II Year

Prachi Purbia
II Year
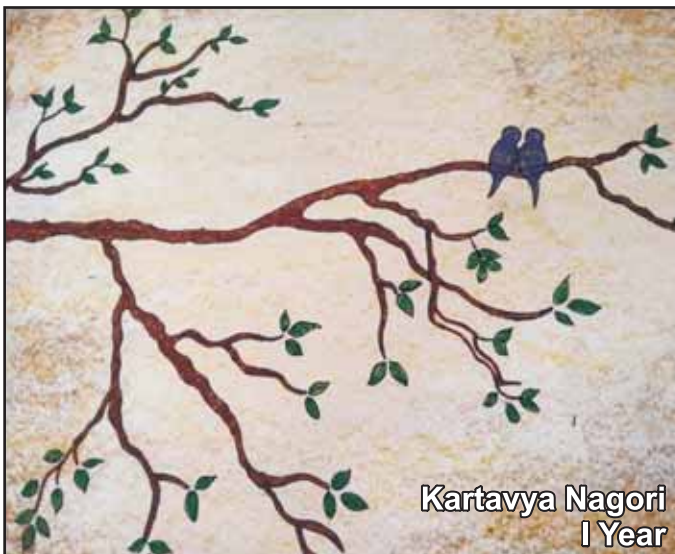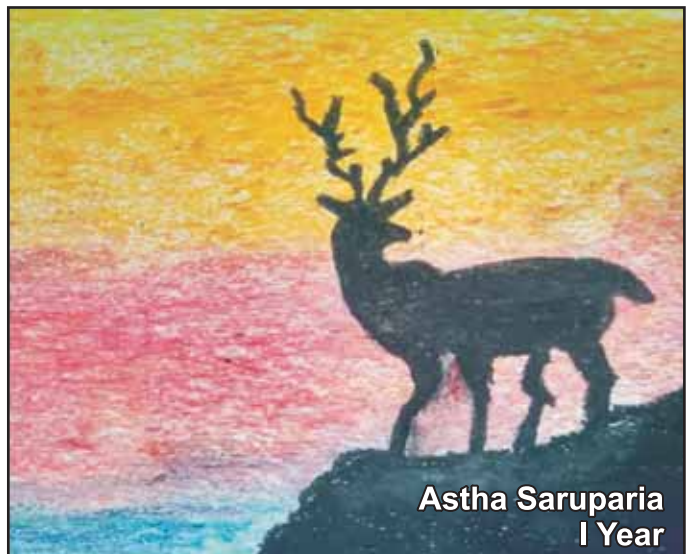
Ami Sharma
I Year

Riya Chaplot
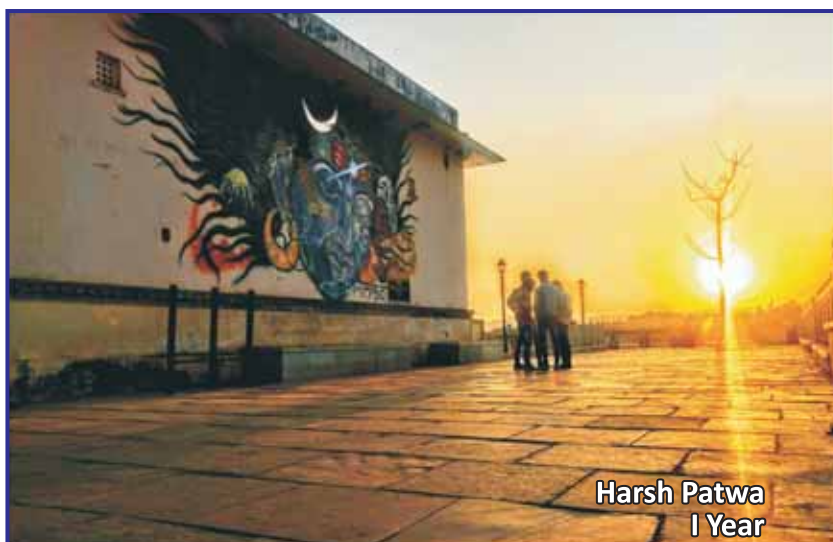I Year

Jayant Banshiwal
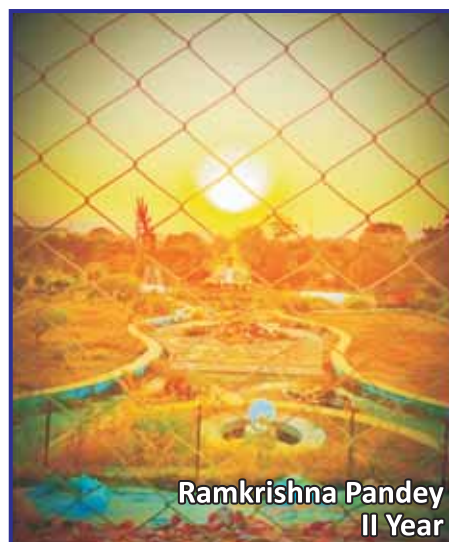I Year

Vaibhavi Golechha
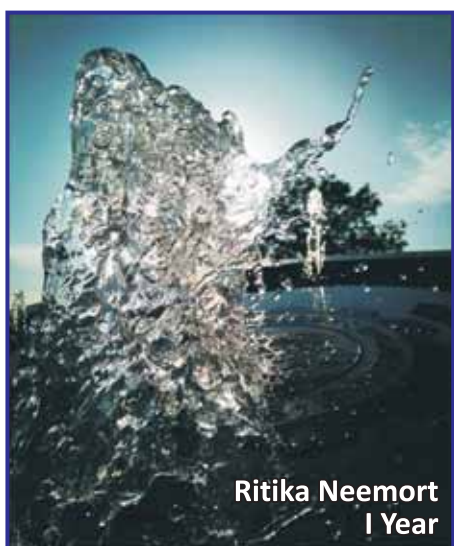III Year
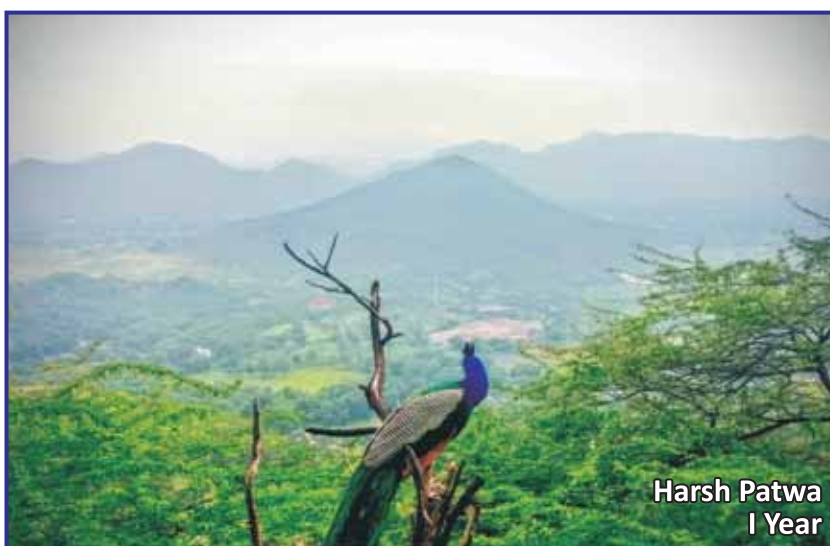

Kartavya Nagori
I Year

Astha Saruparia
I Year

Harsh Patwa
I Year

Ramkrishna Pandey
II Year

Ritika Neemort
I Year

Harsh Patwa
I Year

Rohit Sharma
III Year

Courtesy
Front Cover Photo - Rohit Sharma, III Year