



Prof. Uday Annature
Director, ICT Jalna



Streamlining minds मार्गजल

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Academic Year 2021-22



Prof. Aniruddha Pandit
Vice Chancellor, ICT

MARJ Newsletter



Congratulations Students...

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Editor : Dr Kapil Sagolikar



Mrinmayee Warode
For getting placed at



Susmit Nikam
For getting placed at





Flag Hoisting (26 January 2022)



Foundation Day (04 May 2022)



Gudi Padwa Celebration (05 April 2022)





From Director's Desk



Apart from this, my students are very active in the academics too. They keep publishing in high impact journals and participate and win at the (inter)national level competitions. For instance- a group of four (of integrated program) students secured the second rank at Mondelez Mavins; Vedant Joshi (for being the Assistant Editor of MSA) and Jidnyasa Chintamani (the Campus Ambassador for Foodtech Pathshala Organisation) made us proud and put ICT MARJ at the global level. What a proud moment it is for the MARJ Family!



Hello Everyone!

This is my pleasure to interact with you through the voice of Margjal (Volume 04 Issue 02). First, let me tell you that the activities pertaining to the campus development at the 200-acre land at Siraswadi has started and very soon we will be into the business of construction.

This is for the first time that we started taking part in the unfurling of National Flag. On 26 January 2022 we unfurled the National Flag on 73rd Republic Day. It was a proud moment for the MARJ Fraternity to celebrate this day on our own campus. We will responsibly continue taking part in the Flag Hoisting event every year.

Alongside the participation in the Republic Day, we had one more moment to capture and feel proud of. We celebrated ICT MARJ Foundation Day on 04 May 2022. The foundation stone was laid in the hands of Honourable Chief Minister Devendra Phadanvis, and Padmashri Dr. G D Yadav, Vice Chancellor, ICT on 04 May 2018. The difference can be witnessed between that day and this day: how we went on climbing and achieving great accomplishments and moved from the (foundation) stone to a big institute. I feel proud to be the Director of such an institute!

The celebration of Foundation Day was coupled with the installation of UAA Marathwada Chapter Executive Committee. It strengthened our bond with Marathwada Chapter, and I am sure together we will take part in the development of Marathwada region. Overall, we had a great day.

Apart from it, we had a very productive visit to ICT Mumbai Campus. The ICT Mumbai officials and our faculty had a great interaction and discussion on various things. Our Vice Chancellor was happy and even said that once in a trimester we will have such a meeting. Thank you, sir, for sparing some time to meet us. We are obliged to you for accepting our request to meeting.

Let me tell you one thing, guys. The campus keeps developing itself. We have installed a couple of lab instruments and procured smart classrooms and developed a computer lab too. This has enabled us to stand tall in the field of education and attract the studios

students for sure.

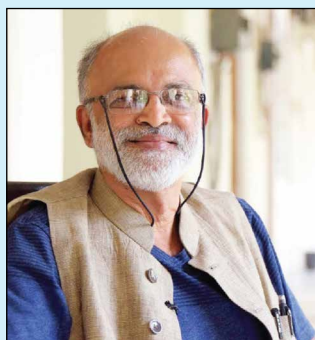
The first batch of Two-Year M Tech program in Food, Pharma and Polymer is about complete its academic endeavours and guess what, the Campus Placement Selection has just started and a couple of our students got selected too. I personally congratulate the selected students- Mrinmayee and Susmit- and wish others to go through the procedure confidently. I am happy that our students have shown their worth and eligibility to get recruited. I am sure in due course of time the number will increase and we will have our own rich alumni network.

Apart from the watertight academic schedule our students find ways to undertake cultural and sports events at MARJ. One of such events was the celebration of Gudi Padwa. The enthusiastic batch of 2019 integrated M Tech took the initiative to carry out this program. These students make me nostalgic of my college days where I used to participate actively in such programs. Kudos to them and a pat! Apart from this, my students are very active in the academics too. They keep publishing in high impact journals and participate and win at the (inter)national level competitions. For instance- a group of four (of integrated program) students secured the second rank at Mondelez Mavins; Vedant Joshi (for being the Assistant Editor of MSA) and Jidnyasa Chintamani (the Campus Ambassador for Foodtech Pathshala Organisation) made us proud and put ICT MARJ at the global level. What a proud moment it is for the MARJ Family!

I know if given a chance I will keep writing in praise of my students and faculty. But somewhere I should stop and let you read this Issue so that you will also get to know whether my words are true or not. Therefore, I take your leave but urge you all to stay connected and find a way to be a part of ICT MARJ!

Prof. Uday S Annapure
Director

Encouragement from the Vice Chancellor



I am very happy to tell you about my very successful visit to the USA in the month of Mid-May to Mid-June. I had the opportunity to visit Chemical Engineering departments and associated Labs at MIT and HARVARD at Boston and gave a seminar at MIT. We have also signed MOU with MIT D Labs working on the analysis and development of Solid Fuel burning stoves and the indoor pollution caused by them. ICT's strength of equipment design and analysis and MIT's strength is sensor development and electronics support has created a mutually acceptable win-win situation.



My dear MARJ family members,

It is that time again to establish the contact with the readers of MARGJAL.

I am sure, you all must now be happy to see students back on the campus and being able to net-work with them personally, ending the era of on-line regime.

However, even when you all student were away from the campus, the faculty and the support staff have been working very hard, establishing new functional labs, making sophisticated analytical instruments functional and creating additional infrastructure for conducting off-line lectures and practicals. Many of you also took the benefit by spending time at other places either as students or as interns. The past trimester, which just got concluded must have been quite a different experience after spending nearly two years in an on-line mode.

I am very happy to tell you about my very successful visit to the USA in the month of Mid-May to Mid-June. I had the opportunity to visit Chemical Engineering departments and associated Labs at MIT and HARVARD at Boston and gave a seminar at MIT. We have also signed MOU with MIT D Labs working on the analysis and development of Solid Fuel burning stoves and the indoor pollution caused by them. ICT's strength of equipment design and analysis and MIT's strength is sensor development and electronics support has created a mutually acceptable win-win situation. This is likely to result into excellent future research collaboration between these two Institutes. The laboratories in HARVARD were outstanding especially in the area of Bio-technology and therapeutics. I am happy to tell you that new laboratory constructed and renovated at ICT by the Speciality Chemicals Department is on par with these labs and one got the feeling that we are on the right track and the goal of ICT being a top ranking University is slowly being approached positively.

Subsequently, I visited Washington University at St. Louis and gave a seminar there. There is a possibility of getting 3 or 4 students as fully paid interns for 3 months in this University and MOU to that effect is expected to be signed soon. Washington University is very keen to establish this linkage with ICT. I also had two meetings with the ICT alumni, one while in Portland with ICT alumni across the entire USA, East Coast to West Coast, including the Central region of Texas. This was an on-line meeting and could elaborate the ICT's working during the COVID period and timely help of ICT alumni for ICT's mess workers and scholarships for the student of the ICT. ICT's need for additional infrastructure has been elaborated to these alumni.

The second meeting was in San-Francisco of the Bay- area alumni. This was off-line meeting and was conducted in an interview and a chat mode. More than 60 ICT alumni participated in this meeting and committed their support and assistance to ICT in all its current and future endeavours.

By the time, you read this, the installation of the Solvent Extraction Plant must be complete. The work will start on its utilization in consultation and collaboration with CIMAP.

I am happy to let you know that our detailed project report (DPR) for Jalna Campus construction has been accepted and cleared by the Public Worker Department (PWD). Thus, this activity is likely to start soon.

I wish you all the very best and looking forward to meeting you soon. Continue the excellent work, which you are doing and keep ICT flag flying high.

Warm regards,

Professor Aniruddha B Pandit
Vice Chancellor
Institute of Chemical Technology

Academic Endeavour

Unfurling of Flag on 73rd Republic Day

Institute of Chemical Technology (Mumbai) Marathwada Campus Jalna participated in the Flag Unfurling on 73rd Republic Day on 26 January 2022 on Campus. Students, faculty, and

support staff gathered at New Building Foyer. The Director of the campus Prof Uday Annature unfurled the National Flag. The national anthem followed the unfurling. The director addressed the gathering. The celebration concluded with Vande Mataram Geet and the savouring of the sweet.



Celebration of ICT MARJ Foundation Day

We celebrated our fifth Foundation Day on 04 May 2022. It was the most awaited day for the MARJ fraternity as we cherish the day.

On this day of May 2018, the institution started its journey with a vision to be a vibrant

Director of the institute Prof Uday Annapure gave an overview of the journey of ICT MARJ. He captured the journey right from the historical day when the foundation stone of our institution, ICT-Mumbai Marathwada Campus, Jalna, was laid in the hands of Honourable Chief Minister Devendra Phadanvis, and Padmashri Prof (Dr) G D Yadav, then Vice Chancellor, ICT. He



educational institute with innovative program and research culture in the field of chemical and allied sciences. It is therefore obvious that the day is special and needs celebration in due manner and commemoration of all the achievements and success along with the inceptive changes that have come paving the way for success over these few years since establishment.



encompassed the four years journey and the journey ahead. ICT Vice Chancellor Prof A B Pandit addressed the gathering and gave good news regarding the phase I plan of securing the allotted land and construction of academic, administrative, hostels, faculty housing and sports complex including library has been approved by the PWD of the Government of Maharashtra



with a total outlay of nearly Rs. 62 crores and the tendering procedure for the implementation will begin soon. You will see the new planned campus taking shape in this year. He also vouched for “practice what you preach” mantra to the faculty members and the students. Mr Sriram Narayanan, Managing Director, Endress + Hauser (India) Automation Instrumentation Pvt. Ltd President, Confederation of Indian Industry, Maharashtra state, graced the occasion as Chief Guest. He enthralled the gathering with his speech.

The Installation of UAA Marathwada Chapter Executive Committee also took place on the same day in the pre-lunch session. This remarkable event was intended to support the new alumni by providing an opportunity to build new relationships, develop network, and association with the distinguished personalities having similar background. The existence of the UAA Marathwada Chapter Executive committee is to encourage the future goals of the parent organization, and reinforce the bonds between the students, alumni, and ICT MARJ.

UAA BOG representative Mr Panse, gave an

overview of this programme and announced the chairman of UAA Marathwada Chapter. The chairman of the program Mr Khose henceforth announced and welcomed all the other members of the committee. Namely- Mr. Rajesh Hundekar, Secretary, Mr. Prashant Gangapurwala Treasurer, Ms. Supriya Sapturshi, Joint Secretary, Mr. Sanjay Pankhade, Executive Committee

member, Mr. Uday Naik, Executive Committee member, and Dr. Yogesh Ghat, Executive Committee member.

In this event Mr Khose also made an announcement that ICT MARJ Director would be an Ex-Officio member of the Committee. This event happened in

the august gathering

that includes ICT Vice Chancellor Prof A B Pandit, ICT MARJ Director Prof U S Annapure, Chief Guest Mr. Sriram Narayanan, UAA BOG representative Mr. Rajeev Panse, and Chairman UAA Marathwada Chapter Mr. B. S. Khose.

In the post lunch session we had an inspirational talk by Mr Rajeev Panse. His talk was for students and faculty as it was on “Lifestyle Boosters- For Enhancing Quality of Life”. He disseminated the information on lifestyle formula: 4R + 2Q + 1W + S (R for regular exercise, regular nutrition, regular meditation, and regular sleep; Q for Quality time for family and friends, and quality time for hobby, whereas W was for workload with optimum stress and S for Sewa i.e., social service. His talk revolved around the Japanese term “ikigai” meaning positive start of the day. The talk ended, which we wanted never to, with the focus in life to be given on happiness and contentment. The day-long program ended with a visit to the actual land given to ICT MARJ by Govt of Maharashtra.

A Three-Day Virtual Convention on "EAT-SAFE"

A Three-Day Virtual Convention of the 28th Indian Convention of Food Scientists and Technologists on 'Emerging and Adoptable Technologies for Sustainable Agro-Food Industries and Economy (EAT-SAFE)' took place from 20-22 January 2022. It was jointly organized by the Institute of Chemical Technology, CSIR- Central of Food Scientists and Technologists and AFST (I), Mumbai Chapter and Aurangabad Chapter. Prof Aniruddha Pandit (ICT Mumbai Vice Chancellor), Dr Sridevi Annapurna Singh (Director CSIR CFTRL, Mysure), Dr Anil Dutt Semwal (Director, DRDO DFRL, Mysuru) and Prof Pramod Yeole (Vice Chancellor, Dr Babasaheb Ambedkar Marathwada University, Aurangabad) garced the occasion as the guest of honour and offered their remarks. ICT MARJ

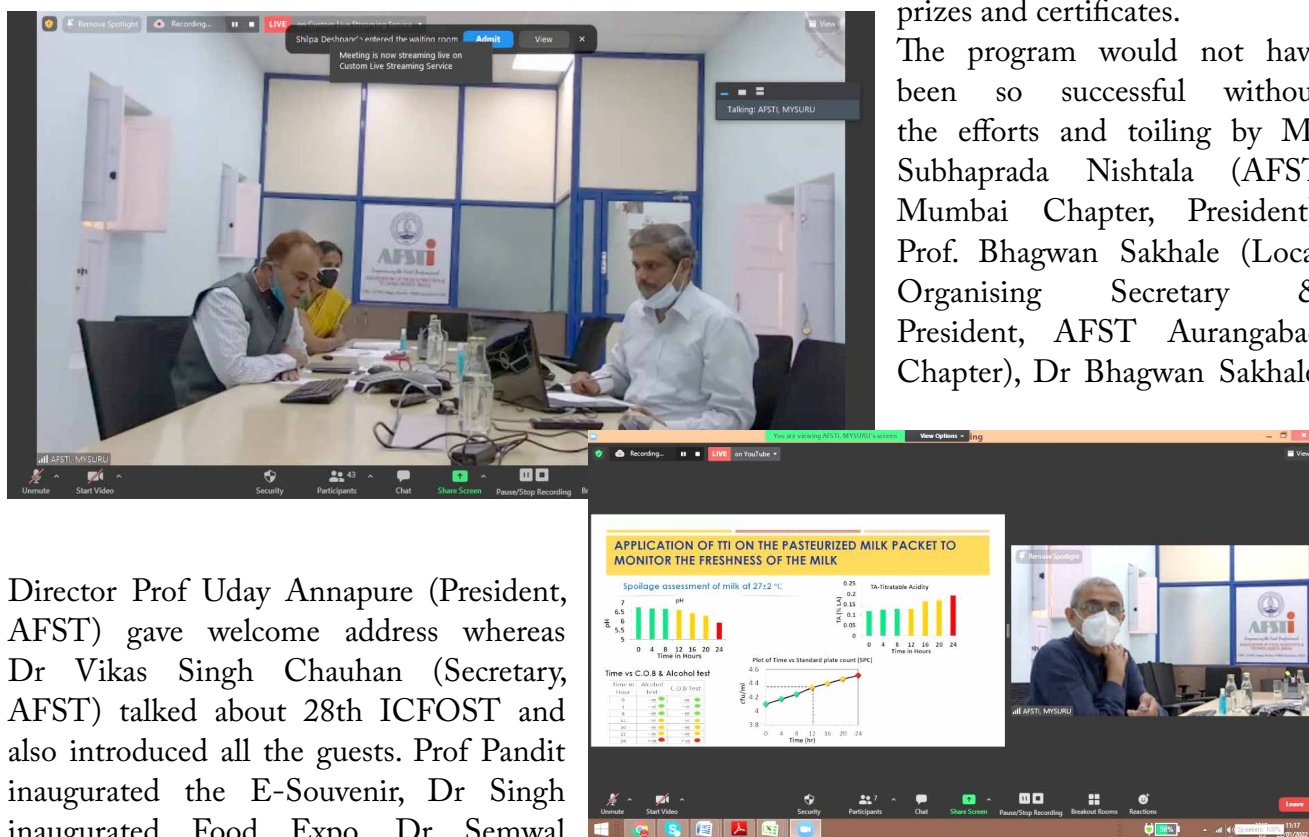
for making "Aatmnirbhar Bharat" and increase the food production. The Inaugural Function concluded with the vote of thanks proposed by Dr Navin Shivanna (Treasurer, AFST).

At the Valedictory Function, Dr Ashok Dhawan (Vice-Chancellor of Vasantnao Naik Marathwada Krishi Vidyapeeth Parbhani) said that India solved food scarcity by using technology in the agricultural sector. He said that India has become self-reliant in food production and provides food to a large population because of technology. He said that Modi Govt. has encouraged farmers through the startup program and given an impetus to the development in the food sector. Seventy experts and scientists presented their papers on various subjects, including food engineering and nutraceuticals in these three day.

The power-packed convention had 33 technical sessions, 200 posters and 200 oral presentations. The best research papers were honoured with

prizes and certificates.

The program would not have been so successful without the efforts and toiling by Ms Subhaprada Nishtala (AFST Mumbai Chapter, President), Prof. Bhagwan Sakhale (Local Organising Secretary & President, AFST Aurangabad Chapter), Dr Bhagwan Sakhale,



Director Prof Uday Annapure (President, AFST) gave welcome address whereas Dr Vikas Singh Chauhan (Secretary, AFST) talked about 28th ICFOST and also introduced all the guests. Prof Pandit inaugurated the E-Souvenir, Dr Singh inaugurated Food Expo, Dr Semwal inaugurated poster session, and Prof Yeole felicitated 28th ICFOST Logo Winner.

The convention was inaugurated by Minister of State for Finance Dr Bhagat Karad. Dr Karad urged agriculture scientists and farmers to work

Dr Yogesh Gat, Mr Phoolchand Jain, Dr Parag Nemade and Suresh Kagne.

COLLOQUY

Our fortnightly webinar series “Colloquy” has ventured in the third trimester. Despite the busy academic schedule we organised three important and relevant talks by Prof K S Laddha, Ms Shilpa Telang and Dr Prabodh Halde.

Prof. K S Laddha on “Development of Phytochemicals from Lab to Commerce” (15 January 2022)



The session introduced the audience to the concept of phytochemicals: the chemicals that are obtained from plants. He gave an insight on the importance of these chemicals along with their uses in various sectors, including food and drugs.

Through his various examples, he explained how all the man-made chemicals designed and developed today are inspired by these natural botanicals.

A couple of case studies coupled with various isolation and extraction techniques followed by HPLTLC/HPLC results showed us how these chemicals are converted into a commercialized form. He further elaborated on the use of phytochemicals in herbal drug and extract analysis. From 2009 to 2015, the MNPRL, ICT Mumbai has contributed close to 60 monographs which have been published by the ICMR.

To end with, he urged the listeners to look out for innovative technologies for extraction and isolation of phytochemicals which will eventually lead to their applications in various industries.

Ms Shilpa Telang on “Design Challenges in Product Design at the Lab’ and ‘Seamless Technology Transfer from Lab to Plant” (29 January 2022)



Ms Shilpa Telang from Tata Chemicals enlightened the audience with her talk on “Design Challenges in Product Design at the Lab’

and ‘Seamless Technology Transfer from Lab to Plant’.

The key elements to framing product specifications were highlighted. She discussed consumer need, value creation through product design and typical tools. Additionally, she deliberated on the design challenges in product design at the lab along with how to frame and address it. The technology research commercialization process was explained. The process scale-up, its need, key challenges, and a proactive approach to overcome the challenges were thoroughly reflected in her talk.

Dr Prabodh Halde on “Prospects of Food Technologist in light of Covid” (19 March 2022)



It was an insightful session. To start with “every problem is an opportunity in disguise”, was his positive approach to initiate the discussion. He was quite extroverted to share stories, experiences to motivate the audience and

to push everyone towards working hard. He suggested to read Nal Pakdarpan and other food stories including how aspartic acid increases the sweetness. He advised to respect your professions by saying the field of food technology has vast farmer empowerment potential. He briefly went through food markets, future trends and the growth factors in the same. He threw some amazing start-up ideas, including dominance of Indian food market in Covid times. Further, he covered relationship of innovation with academia synergy, creativity, and commercialization along with discussing consequences of patents, research papers and utilization of your innovation. His energy towards his work was very enlightening and inspiring in general.

ICT MARJ Faculty Visited ICT Mumbai

ICT MARJ Faculty visited ICT Mumbai campus on 08 April 2022. It was an official visit to main campus. MARJ faculties were eager and delighted to meet the main campus office bearers and interact with them. They along with the Director met ICT Mumbai campus officials- Prof A B Pandit (Vice Chancellor), Prof R R Deshmukh (Registrar), Prof R V Adivarekar (Dean HRD), Mr Deepak Jadiye (OSD) and Mr Sachin Kadam (Assistant Registrar-Finance & Accounts).

The meeting enabled us to deliberate on various issues related to ICT MARJ campus, and the welfare of its teaching staff and support staff. Overall, the meeting was fruitful and provided us with the clarity on most of the issues and promises on some other. Prof Pandit was happy and was looking forward to meeting us. He also said that such periodical meetings will take place either at Mumbai campus or at respective off campuses once in every trimester.





IPT- 5 Batch-2018 Industry Allotment (1st January - 28th February 2022)

| SN | Student Name | Name of Industry / Home Project |
|----|--------------------|--|
| 1 | Harsh Darji | Research Project under the guidance of Dr Manoj Gawande |
| 2 | Ashutosh Darak | Supercritical fluid based extrusion technology- Dr Sandhya Shewale |
| 3 | Bhavesh Dayma | Research Project under the guidance of Dr Yogesh Gat |
| 4 | Farhan Shaikh | Photocatalysis for treatment of industrial waste water under Dr Nemade |
| 5 | Aum Chaudhari | SASMIRA, Mumbai |
| 6 | Hiteshree Sarode | Vega Chemicals Pvt Ltd & R J Foods, Jalgaon |
| 7 | Adarsh Chhaba | IPCA Laboratories, Aurangabad |
| 8 | Parth Khandagale | Amogh Chemicals Pvt Ltd, Mumbai |
| 9 | Harshal Kasat | Avalon Cosmetics Pvt Ltd, Sinnar Dist, Nashik |
| 10 | Aditya Bhalariao | Home Project under Dr Navnath Hatwate |
| 11 | Abhishek Mote | Endress+Hauser Ltd Waluj, Aurangabad |
| 12 | Janhavi Dhumal | Research Internship under the guidance of Dr Parag Nemade |
| 13 | Aman Patni | Research Project and Online Study |
| 14 | Mrudav Raval | RCF Ltd, Chembur Mumbai |
| 15 | Ravinutala Shivani | Indian Institute of Chemical Technology, Hyderabad |
| 16 | Vedant Joshi | Indian Institute of Petroleum, Dehradun |
| 17 | Pratap Gurav | Alkyl Amines Ltd Kurkumbh, Pune |
| 18 | Vedant Kulkarni | Adherence Techno Products, Aurangabad |
| 19 | Raunak Dayma | Abhay Nutrition Pvt Ltd Group, Jalna |
| 20 | Piyush Dhage | RCF Ltd, Chembur Mumbai |
| 21 | Prajwal Jadhav | Chemvera Speciality Chemicals Pvt Ltd, Mumbai |
| 22 | Dhananjay Nagre | Abhay Nutrition Pvt Ltd Group, Jalna |
| 23 | Bhumi Borade | Transpek Industries, Vadodara |
| 24 | Krutarth Pandit | Energy Efficiency Services Limited (Mumbai). |
| 25 | Aman Tamboli | Indian Institute of Petroleum, Dehradun |
| 26 | Utkarsh Patodi | Cream N Joy, Karodi, Waluj Aurangabad |
| 27 | Ali Asger | Research Project under the guidance of Dr Parag Nemade |
| 28 | Atharva Jahagirdar | Adherence Techno Products, Aurangabad |
| 29 | Karan Sharma | Chemvera Speciality Chemicals Pvt Ltd, Mumbai |
| 30 | Shreyash Deshmukh | BARC- Project under the guidance of Dr Somen Moda |
| 31 | Ayush Deore | BARC-Project under Dr Somen Mondal |
| 32 | Harsha Kasliwal | Baggry's Ltd, Delhi (Food Innovation Research) |
| 33 | Sakshi Jatkar | Research Project under the guidance of Dr Parag Nemade |
| 34 | Vishwas Erulkar | Sai Smaran Foods Ltd, Nanded |
| 35 | Rohan Wankhede | HPCL Lube Plant, Mazgaon Mumbai |
| 36 | Akshat Bedmutha | Luvn Foods, Powai, Mumbai |
| 37 | Vaidehi Patil | Blast Carboblocks Pvt Ltd, Vashi Navi Mumbai |
| 38 | Rohit Chaudhari | In-situ implants for periodontal pockets- Dr Navnath Hatawate |
| 39 | Manthan Dixit | RCF Ltd, Chembur Mumbai |
| 40 | Adwait Sawant | Alkyl Amines Ltd, Kurkumbh Pune |

**IPT- 5 Batch-2018 Industry Allotment (1st January - 28th February 2022)**

| SN | Student Name | Name of Industry / Home Project |
|-----------|---------------------|---|
| 41 | Urvi Parlikar | In-situ implants for periodontal pockets- Dr Navnath Hatawate |
| 42 | Smith Patil | Research Internship under the guidance of Dr Yogesh Gat |
| 43 | Ameya Mantri | Durga Rolling Mills, Jalna |
| 44 | Prasad Lakade | R K Foods, Pune |
| 45 | Nikhil Umale | ICON Steels, Jalna |
| 46 | Sachin Adhe | Concept Pharmaceuticals, Chikalthana |
| 47 | Siddhant Unde | Zelos Foods, Chakan MIDC Pune |
| 48 | Vishnu Pradeep | Kansai Nerolac Paints Ltd, Koparkhairne Mumbai |
| 49 | Aniket Pinjari | FDC India, Roha |
| 50 | Yogesh Mhetre | Metalman Auto Components Pvt Ltd, Waluj Aurangabad |
| 51 | Lekharaj Mahajan | Research Project under Dr Nemade sir |
| 52 | Gargi Patil | Transpek Industries, Vadodara |
| 53 | Kartik Ghate | Research Project under the guidance of Dr Sandhya Shevale |
| 54 | Harshal Kavhale | Metalman Auto Components Pvt Ltd, Waluj Aurangabad |
| 55 | Shrenik Bakhda | Chemvera Speciality Chemicals Pvt Ltd, Mumbai |

IPT Industry Allotment Batch 2020 IPT-2 (1st April - 28th May 2022)

| SN | Student Name | Name of Industry |
|-----------|-----------------------|---|
| 1. | Avishkar Suradkar | Abhay Nutrition Gundewadi, Jalna |
| 2. | Abhilasha Shastri | Concept Pharmaceuticals, Chikalthana Aurangabad |
| 3. | Aditya Vishram Desai | RCF Ltd Chembur, Mumbai |
| 4. | Advait Mandlik | Solar Industries, Nagpur |
| 5. | Aiyshwaryalakshmi | Ministry of Environment, Forests and Climate Change |
| 6. | Ajaz Khan | RCF Ltd Chembur, Mumbai |
| 7. | Akhil Nair | RCF Ltd Chembur, Mumbai |
| 8. | Amrut Chavan | Ajanta Pharma, Waluj |
| 9. | Amruta Phegade | Glenmark Pharma, Nasik |
| 10. | Ananya Sathe | RB CFBP SNTD, Mumbai |
| 11. | Atharva Nilkanth | Savera Pharmaceuticals Pvt Ltd, Aurangabad |
| 12. | Deep Sandikar | Concept Pharmaceuticals, Chikalthana Aurangabad |
| 13. | Devansh Pathak | Concept Pharmaceuticals, Chikalthana Aurangabad |
| 14. | Hridaay Eppaturi | RB CFBP SNTD, Mumbai |
| 15. | Jyoti Soni | Mondelez Induri, Pune |
| 16. | Kabir Raut | Chandrapur Super Thermal Power Plant, Chandrapur |
| 17. | Khushwantsingh Rajput | Divya SRJ Foods, Jalna |
| 18. | Ankita Singh | Vinodrai Engineering, Dawalwadi Jalna |
| 19. | Mahesh kshirsagar | Kalash Seeds, Jalna |
| 20. | Prachi Patil | Vinodrai Engineering, Dawalwadi Jalna |
| 21. | Pranjal Ambhore | Vinodrai Engineering, Dawalwadi Jalna |
| 22. | Pruthvi Marathe | Savera Pharmaceuticals Pvt Ltd, Aurangabad |
| 23. | Rohit Pawar | Kopran, Khopoli |

IPT Industry Allotment Batch 2020 IPT-2 (1st April - 28th May 2022)

| SN | Student Name | Name of Industry |
|-----|---------------------|---|
| 24. | Sanika Raut | Vinodrai Engineering, Dawalwadi Jalna |
| 25. | Shaikh Rehan | Icon Steels, Jalna |
| 26. | Sharjil khan | Thakurji Solvex Pvt Ltd, Jalna |
| 27. | Varun Shastri | Solar Industries, Nagpur |
| 28. | Shubham Ghuge | Concept Pharmaceuticals Chikalthana, Aurangabad |
| 29. | Sudhanshu Vyawahare | Ajanta Pharma, Waluj |
| 30. | Tejas Gorkar | JBSSK Gadhi, Gevrai |
| 31. | Tejaswini Giri | Kalash Seeds, Jalna |
| 32. | Vaishnavi Bhutekar | Vinodrai Engineering, Dawalwadi Jalna |
| 33. | Varad Deshpande | Ipca Laboratories, Aurangabad |
| 34. | Vasudeo Wange | Metalman Auto Components, Waluj Aurangabad |
| 35. | Vasudha Patil | Mondelez Induri, Pune |
| 36. | Garima Thole | Suhana Masale, Pune |
| 37. | Govind Adhe | Icon Steels, Jalna |
| 38. | Kaustubh Mene | R J Foods, Jalgaon |
| 39. | Radhika Taur | Concept Pharmaceuticals Chikalthana, Aurangabad |
| 40. | Narsingh Kumbhar | Icon Steels, Jalna |
| 41. | Vaishnavi Gajare | CIPET, Chikalthana Aurangabad |
| 42. | Durvesh Patil | RCF Ltd, Chembur Mumbai |

Counselling Sessions by Ms Malini Shah

ICT Counsellor Ms Malini Shah took counselling sessions for MARJ Students. Several students approached her for the same and she agreed to conduct tele-counselling, online counselling, and video counselling. Students discussed various personal, social (coping with covid 19, and others), studies related, and other pertinent issues, problems they are dealing with. Ms Shah's words were the sigh of relief for them and helped them to be motivated.



ACHIEVEMENT

Dr Girish Joshi**1. Associate Editor of Modern Plastic India**

Dr Girish Joshi joined as Associate Editor of “Modern Plastic India” publication house by Emerald Publisher, Germany. This magazine is a cluster of industrial academic and global advancements mapping in the present era. Student community working in the domain of polymer-plastic can get the exposure by contributing their recent progress in the emerging materials, polymer plastic domain.

2. Other Equally Important Achievements by him-

- BCCM scientific committee, Brazil (06 February 2022)
- Board of study member MIT Aurangabad (February 2022)
- Thesis expert CITK, BTR, Assam, India

**Dr Manoj Gawande**

Mr. Dinesh Chaudhari joined Dr Manoj Gawande's Research Group at ICT MARJ in March 2022 as a Project Associate. He is working as a Project Associate and PhD Fellow on a SERB-DST funded project entitled as “Carbon Nitride-based Single Atom Photocatalysts for Advanced Applications.”. His research interest focused on catalysis, organic synthesis, photocatalysis, C-H activation, CO₂ utilization.

Dr Yogesh Gat

- Elected as Local Executive Committee Member for Association of Food Scientist and Technologist India (Aurangabad Chapter)
- Elected as Local Executive Committee Member for UDCT Alumni Association (Marathwada Chapter)
- Nominated as Member of District Advisory Committee for Safe and Healthy Food



EXTENSION ACTIVITIES

Dr Girish Joshi (International Seminar at UCLM, Spain) delivered a seminar at Mining and Industrial Engineering School of Almadén (EIMIA). His talk (titled “Mechanisms of Time-Dependent Materials: A Current Approach”) was on 9 March 2022. It was heartening to continue this kind of endeavour from the last year (academic year 2020-2021), and these events have been proving to be successful. Such endeavour provides a unique opportunity for the students to broaden their vision and motivation with respect to Materials Science and Engineering. His seminar was appreciated widely for sharing knowledge, and for smartly aligning it with the objectives.

Dr Debashis Kundu gave three invited talks. The first talk was on “**COSMO-RS: Theory and Thermodynamic Applications**”. It was

organized by Sri Sivasubramaniya Nadar College of Engineering on 08 March 2022. The second talk was on “**First Principle Calculation and Application to Enhanced Oil Recovery**”. It was organized by Calcutta University on 12 March 2022. The third talk was on “**A-priori Modelling of Density of Deep Eutectic Solvent with Cohesion Based Cubic Equation of State**”. It was organized by Indian Institute of Chemical Engineers (IICChE) on 15 April 2022.

Dr Joyita Sarkar was the resource person for AICTE ATAL FDP on “Sustainability Engineering”. It was organized by Department of Technology, Savitribai Phule Pune University, from 18 to 22 January 2022. She conducted session on “Sustainability in Tissue Engineering and Regenerative Medicine” on 22 January 2022.

PUBLICATION

Prof Uday S Annapure

1. Impact of atmospheric pressure cold plasma on the rheological and gelling properties of high methoxyl apple pectin. S. Basak and **U. S. Annapure**, *Food Hydrocolloids*, **2022**, 129, 107639.
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3. Development of vegan meat flavour: A review on sources and techniques. P. Kale, A. Mishra and **U. S. Annapure**, *Future Foods*, **2022**, 5, 100149.
4. Soil free nutrient availability to plants. S. R. Sathyanarayan, V. G. Warke, G. B. Mahajan and **U. S. Annapure**, *Journal of Plant Nutrition*, **2022**, 1-14, DOI: 10.1080/01904167.2022.2071736.
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7. Trends in “green” and novel methods of pectin modification - A review. S. Basak and **U. S. Annapure**, *Carbohydrate Polymers*, **2022**, 278, 118967.
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9. Recent trends in the application of cold plasma for the modification of plant proteins. S. Basak and **U. S. Annapure**, *Future Foods*, **2022**, 5, 100119.

10. Studies on Chemical and Physical Stability of Mayonnaise Prepared from Enzymatically Interesterified Corn Oil-Based Designer Lipids. H. B. Jadhav, P. Gogate and **U. Annapure**, *ACS Food Science & Technology*, **2022**, 2, 359-367.
11. Psychrozymes: A novel and promising resource for industrial applications. **U. S. Annapure** and N. Pratisha, in *Microbial Extremozymes*, ed. M. Kuddus, Academic Press, 2022, pp. 185-195. DOI: <https://doi.org/10.1016/B978-0-12-822945-3.00018-X>. (Book chapter)

Dr Girish Joshi

1. Quantification of pre- and post-air plasma-treated graphene oxide dispersed polymer blends for high dielectric applications
Shankar S. Humbe, **Girish M. Joshi**,* R. R. Deshmukh, E. Dhanumalayan and S. Kaleemulla
New Journal of Chemistry **2022**, 46, 9909-9922.

Dr Manoj B. Gawande

1. Advances in carbon nitride-based materials and their electrocatalytic applications Farzaneh Besharat, Fatemeh Ahmadpoor, Zahra Nezafat, Mahmoud Nasrollahzadeh, Nilesh R. Manwar, Paolo Fornasiero, and **Manoj B. Gawande***
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2. A review on the synthesis and applications of sustainable copper-based nanomaterials.
Arun D. Kute, Rahul P. Gaikwad, Indrajeet R. Warkad, **Manoj B. Gawande***
Green Chemistry **2022**, 24, 3502-3573.
3. Recent advances of photocatalytic hydrogenation of CO₂ to methanol
Gajanan Y. Shinde, Abhishek S. Mote and **Manoj B. Gawande***
Catalysts **2022**, 12 (1), 94. "Invited"
4. Chemistry of magnetic covalent organic frameworks (MagCOFs): From synthesis to separation applications
Priya Yadav, Manavi Yadav, Rashmi Gaur, Radhika Gupta, Gunjan Arora, Anju

Srivastava, Anandarup Goswami, **Manoj B. Gawande** and Rakesh K. Sharma*
Materials Advances, **2022**, 3, 1432-1458.

5. Earth-abundant cobalt based photocatalyst: visible light induced direct (Het)Arene C-H arylation and CO₂ capture
Pooja Rana, Bhawna Kaushik, Rashmi Gaur, Sriparna Dutta, Sneha Yadav, Pooja Rana, Kanika Solanki, Bhavya Arora, Ankush Biradar, **Manoj B. Gawande** and Rakesh K. Sharma*
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Dr Joyita Sarkar

1. Evaluation of free radical scavenging with in vitro antiproliferative properties of different extracts of *pluchea lanceolata* (dc.) oliv. and hiern in cancer cell lines
R. Humbare, **J. Sarkar**, A. Kulkarni, S. Kamble
Pharmacognosy Magazine, **2021**, 17, 886-892.

Dr Yogesh Gat

1. Use of microalgal biomass as functional ingredient for preparation of cereal based extrudates: impact of processing on amino acid concentrations and colour degradation kinetics
Laxmi Ananthanarayan, Vikas Kumar, Anil Panghal, Barinderjit Singh, Roji Waghmare, **Yogesh Gat**, Narinder Kaur
Brazilian Journal of Pharmaceutical Sciences, **2022**, 58, e18665

Dr Yatin Gadkari

1. An Efficient One-Pot, Multicomponent Synthesis of 1, 3-Thiazolidin-4- Ones Using L-Proline as Catalyst in Water. **U. Y. Gadkari**, D. R. Shanbhag, N. V. Telvekar *Letters in Organic Chemistry* **2022**, 19 (1), 9-13.
2. Eco-Friendly and Efficient Greener Process for the Synthesis of Chalcones and Pyrazolones Using the Supramolecular Catalyst β -Cyclodextrin.
P. K. Bhadke, A. R. Pahelkar, **Y. U. Gadkari**, J. M. Naik, V. N. Telvekar,
Organic Preparations and Procedures International, **2022**, 1-7.

SOCIO-CULTURAL ACTIVITIES

Gudi Padwa Celebration on 05 April 2022

ICT-MARJ celebrated Gudi Padwa as “Traditional Day” on 05 April 2022. The students of 2019 integrated batch took the initiation to carry out this activity.



The day kicked off with Vidyapith Geet. Afterwards ICT MARJ Director Prof Uday Annapure congratulated 2019 batch students for organizing such an event post covid. His speech focused on the importance of life, the role of technologists in the dire time of covid-19. Towards the end, he urged everyone to serve the humankind. He also promised that the campus will be developed at the given land at Siraswadi soon.

After his speech students have shown their hidden talent in the form of dancing, singing, and playing instruments like- flute, table, etc. Tejas Jairange proposed vote of thanks. The celebration ended with the sumptuous snacks.

One Day Fire Safety Workshop cum Training on 06 April 2022

We organized one day workshop cum hands-on training for the faculty, support staff and the students on **Fire Safety** on 06 April 2022. The training included one hour lecture on the different aspects of fire safety. The speaker covered all the aspects ranging from basic to complex, general to specific. He narrated it so well that all the students found it interesting. His explanation incorporated all the information in the form of explaining it through A-Z method (each alphabet stands for

at least one specific terminology of fire and its safety).

The post lecture session was held on the ground, corridors, and verandah of the campus for hands-on training. Thus, the Fire Safety workshop cum Training was the amalgamation of both theory and practice. ICT MARJ will involve itself in organizing more lectures and trainings of this nature.



STUDENT CORNER

Campus Selection

The Institute of Chemical Technology is an organization with total commitment to quality and excellence in academic pursuits. We groom our students, not just in the field of discipline but we broaden their mindset and create a positive attitude too. Thus, equipping them with all the qualities to make them as an asset to whichever institute/ organization they may join. We recently started the Campus Placement and two of our students got the job through campus placement selection-

1. Ms Mrinmayee Warode, M Tech in Pharmaceutical Chemistry & Technology (2020-2022), is placed at Intas Pharma.

2. Susmit Prashant Nikam, M Tech in Pharmaceutical Chemistry & Technology (2020-2022), is selected at Baxter.

The list which just started will get longer and longer in the coming days.

Achievement

• Smith Patil, (2018 Batch), led a team (Prime Protein), with 3 of his batchmates (Akshat Bedmutha, Harsha Kasliwal and Harshal Kasat) to compete in **Mondelez Mavins** for which the **team secured Second Place and Cash Prize**.

• Vedant A. Joshi, Mr. Atharva V. Jahagirdar, and Mr. Vedant A Kulkarni all 4th Year Integrated M Tech student recently completed their **internship in Bombay Technologist Undergraduate Research Program-2022** under the guidance of Dr Girish Joshi on the topic entitled **“Recent trends in synthesis, properties and applications of Graphene Nanoribbons”**.

• Vedant Joshi was working with Membrane Society of Australasia from last year and recently **he has been promoted to the post of Assistant Editor in MSA**. He will be working for rest of his tenure under the guidance of Dr Amir Razmjou (Editor in Chief) and Dr Milton Chai (Associate Editor)

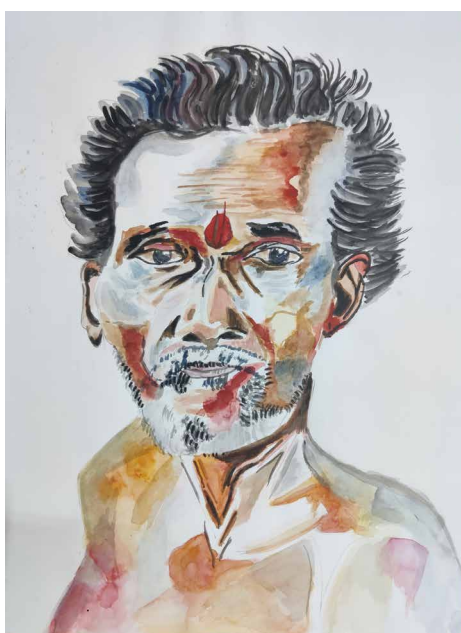
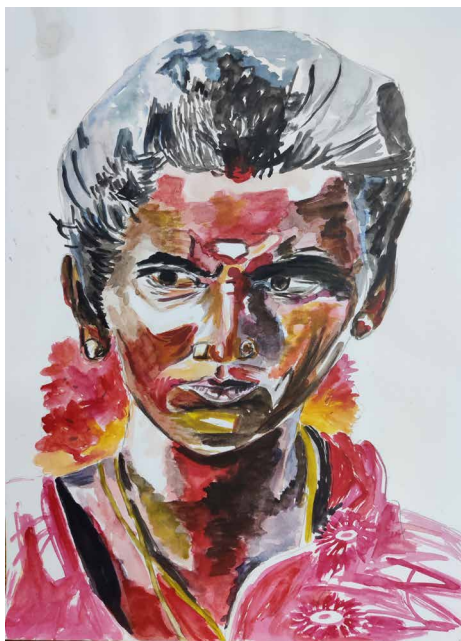
• Jidnyasa Chintamani, (2019 Batch), was selected to be the **campus ambassador for Foodtech Pathshala Organization**. **This organization** conducts trainings and live virtual tours of food processing units.

• Tanisha Patni, (2019 Batch), successfully completed **National Internship under Bombay Technologist Undergraduate Research Program**.

• Sarang Subhashchandra Shindalkar, 3rd Year Integrated M Tech (2019 Batch), successfully completed his work at the Bombay Technologist's Undergraduate Program (BTUGRP) in online form under the supervision of Dr Parag Nemade. He worked on the topic “Scale-up studies of Curcumin Extraction from Turmeric”.

• Aiyshwaryalakshmi, 2nd Year Integrated M Tech (2020 Batch), successfully completed her **National Internship at Ministry of Environment, Forest and Climate Change, Hazardous Substance Management Division**. She worked in the areas of Chemical Safety Rules, Tar Ball Pollution, Biomedical Waste

Management, Chemical Accident Management at Indira Paryavaran Bhavan, New Delhi.



STUDENT PUBLICATION

Shankar S Humbe (Research Scholar)

Quantification of pre- and post-air plasma-treated graphene oxide dispersed polymer blends for high dielectric applications

Shankar S. Humbe, Girish M. Joshi,* R. R. Deshmukh, E. Dhanumalayan and S. Kaleemulla
New Journal of Chemistry **2022**, 46, 9909-9922.

Pratibha S Jadhav (Research Scholar)

Study of the preparation and properties of polyvinyl chloride/nitrocellulose polymer blends

Pratibha S Jadhav, Girish M Joshi,* Shankar S Humbe, Raghvendra S Dubey, and Shaik Kaleemulla
Polymer International **2022**, DOI: <https://doi.org/10.1002/pi.6385>.

Gajanan Y Shinde (Research Scholar)

Recent advances of photocatalytic hydrogenation of CO₂ to methanol

Gajanan Y. Shinde, Abhishek S. Mote, and Manoj B. Gawande*
Catalysts **2022**, 12, 94.

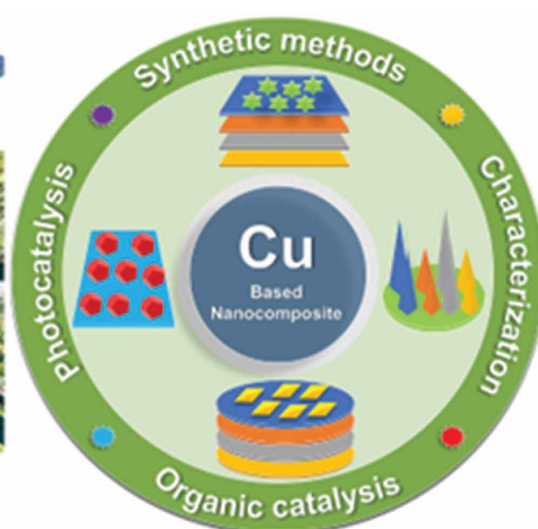
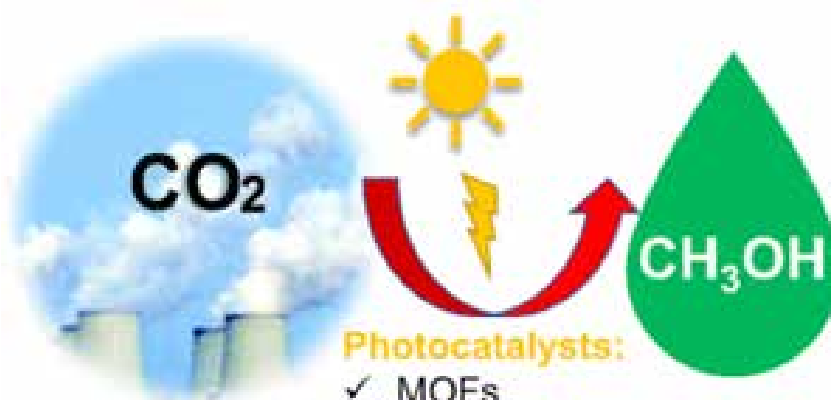
Arun D Kute (Research Scholar)

A review on the synthesis and applications of sustainable copper-based nanomaterials

Arun D. Kute, Rahul P. Gaikwad, Indrajeet R. Warkad and Manoj B. Gawande*
Green Chemistry, **2022**, 24, 3502-3573

Athira G K (M Tech)

Recycling of Plastic waste: Presence of phthalate in plastics from household and industry
Modern Plastics India, **2022**.



CAMPUS DEVELOPMENT ACTIVITY

Smart Classrooms and Computer Lab

A smart classroom is a combination of audio, video, animations, graphics, and multimedia, which improves the teaching and learning process for both teachers and students. This enhances student involvement and results in higher academic performance. As a part of infrastructure development and expansion, we developed four new smart classrooms which has capacity more than 40 students at a time. These classrooms are fully equipped with projectors, and audio-video system. We have also developed a separate computer lab which can accommodate 60 students.





The Installation of Instrument

• High-Pressure Reactor / Autoclave-

Three units of High-Pressure Reactor / Autoclave (Make: Amar Equipment, Mumbai) was installed in the Reactor Room. These reactors have 100 ml capacity, and they withstand for 100 bars at 250 °C. Autoclave Reactor is used in the research and development of various chemicals. It is also used in the study of chemical reactions and their improvement, the production of new catalysts, the corrosion studies, and the separation or mixing of compounds. They are usually used for high-pressure and high-temperature chemical reactions like alkylation, amination, acetylation, acylation, bromination, carboxylation, catalytic reduction, chlorination, dehydrogenation, esterification, ethoxylation, halogenation, hydrogenation, methylation, nitration, oxidation, ozonisation, polymerization, sulphonation, etc.

- ✓ To invent new molecules / chemicals & study reaction parameters
- ✓ To produce chemicals in small quantity



▲ Pressure Autoclave 100 ml

- ✓ For organic synthesis
- ✓ For quality control & process improvements
- ✓ For high throughput catalyst screening

They are also used for reaction calorimetry to study heat of reaction, for static, dynamic, loop & electrochemical HPHT corrosion testing and gas hydrate formation study.

Tube Furnaces

Two units of Tube Furnaces (Make: Carbolite Gero) are installed for high temperature pyrolysis processes under inert conditions. This heating technology was utilized in many applications including additive manufacturing, annealing, ashing, calcination, carbon nanotubes synthesis, coal and coke testing, graphitization, sintering, smelting etc.

Fixed Bed Reactor

The installation of fixed bed reactor is under process. They will soon be added into the State-of-Art analysis facility of MARJ.



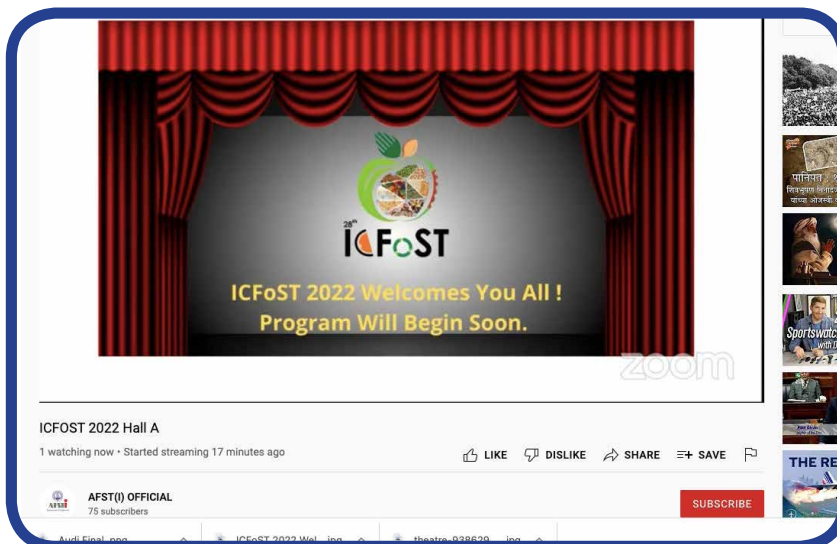
▼ Tube Furnace



Student Achievement



Gudi Padwa Celebration (05 April 2022)



Virtual Convention on EAT-SAFE (20-22 January 2022)



Visit to Mumbai Campus (08 April 2022)



Visit to Computer Lab (04 May 2022)



Celebration of Foundation Day (04 May 2022)

Virtual Convention on EAT-SAFE (20-22 January 2022)

