



i360 NEWSLETTER
2023
Volume 3 - July

In Spotlight
"Dr. Rajeshri Patel"
Associate Librarian, Indus University



EXPLORATION WORKSHOP

Dr. Monika Gupta, Assistant Professor and Aditya Jain, Assistant Professor from IDEA conducted a hands-on material exploration workshop under AWHCT guidance and invited experts from July 3-8, 2023. The workshop was carried out at riverfront which AWHC facilitated with input sessions from your immensely learned staff. The workshop was attended by students of Semester-3, which delves with the focus on material exploration. This workshop gave the students a good exposure of working with traditional building materials in a historic context.



ADVANCED IOT

Ms. Nehal Adhvaryu, Assistant Professor, IICT successfully completed one-week ISTE approved online STTP on "Advanced Internet Technology" organized by Computer Engineering Department of Gharda Institute of Technology, Lavel from 3rd July 2023 to 7th July 2023.

ADVANCED IOT

Ms. Mansi Mehta, Assistant Professor, IICT successfully completed one-week ISTE approved online STTP on "Advanced Internet Technology" organized by Computer Engineering Department of Gharda Institute of Technology, Lavel from 3rd July 2023 to 7th July 2023.



EMOTIONAL INTELLIGENCE

Ms. Kamna Tripathi, Assistant Professor, IIPR attended an online training on 'Emotional Intelligence' organized by Silver Oak college of Pharmacy dated on July 4, 2023.



SUSTAINABLE AHMEDABAD

Dr. Monika Gupta, Assistant Professor, IDEA published a book titled 'A step towards sustainability in Ahmedabad' on July 4, 2023. The book is published by LAP LAMBERT Academic Publishing, UK.



"CURRENT TRENDS IN ENGINEERING SCIENCE AND TECHNOLOGY"

Gargi Bhatt, Assistant Professor, IITE participated in Virtual FDP on "Current Trends in Engineering Science and Technology", organized by Sree Shakti Engineering College, Coimbatore from July 3-8, 2023.



FACULTY ORIENTATION PROGRAM

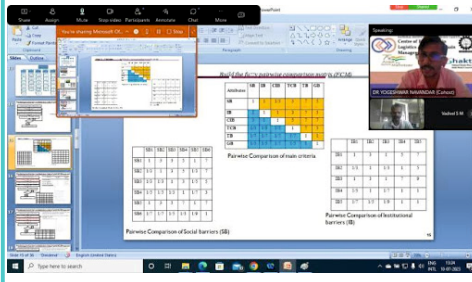
The Faculty Orientation Program, held on July 8, 2023, at Indus University, provided essential information and guidance to recently joined faculty members. The Orientation program familiarizes them with the Institution's vision, mission, policies, and support systems. The program covered various topics, including teaching and learning pedagogy, code of conduct, professional ethics, student grievances, the University's journey and expectations from faculty, mentoring, HR policies, examination rules, ERP/IT systems, and research and development support. The Orientation program aimed to enhance the teaching experience and facilitate the professional growth of the faculty members, aligning them with the institution's goals and fostering academic excellence.

GENERATIVE AI

Ms. Kamna Tripathi, Assistant Professor, IIPR attended a one day online Workshop on 'HARNESS THE POWER OF GENERATIVE AI USING CHATGPT' organized by Teacher Talks Academy on 15 th July 2023.

EXPERT LECTURE

Dr. Samir Patel, Assistant Professor, Department of Civil, IITE gave an expert lecture on the topic "Application of Hybrid MCDM Approach in Transportation Planning." on July 10, 2023, at the STTP "Application of MCDM Methods in Logistics and Transportation Engineering (MMLT 2023)," organized by the Centre of Excellence in Logistics and Supply Chain Management, National Institute of Technology Calicut, Kerala.



SELF EMPOWERMENT

Ms. Dolly Dave, Assistant Professor, IICT participated in National Webinar Under the Objective of Skill Based Development entitled Time Management for Self Empowerment Organized by Sabarmati University on 13 July 2023.



CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms/Dr/Prof. DOLLY DAVE participated in National Webinar Under the Objective of Skill Based Development entitled "Time Management for Self Empowerment". Organized by Sabarmati University on 13/07/2023. We appreciate his/her sincere involvement and active participation throughout the webinar.

Registrar (I/C) Dr. Jyoti Srivastava
Dean Academics Dr. Parshuram Dhaked
NSS Coordinator Dr. Dibp Chaudhary

TEACHER LEARNING PROCESS

Ms. Kamna Tripathi, Assistant Professor, IIPR attended an online faculty Development Program on 'Recent Advancements In Teaching Learning Practices And Its Development' organized by S. Lal Singh memorial college of pharmacy Punjab from July 11-15, 2023.



EXPERT LECTURE SERIES

Dr. Ketan Lakhtaria, Assistant Professor, Department of Civil, IITE delivered four lectures on "Water Treatment Plant" in Pre-service training for newly recruited Executive Engineers and Dy. Executive Engineers (Civil & Mech) of G.W.S.&S.B at Gujarat Jalseva Training Institute, Gandhinagar on July 14, 2023.



FACULTY ORIENTATION PROGRAM

Automobile Department, IITE arranged a workshop on July 15, 2023, for the students of Government Polytechnic, Ahmedabad, titled "Engine Overhauling". The workshop aimed to offer students an opportunity to gain insights into engine rebuilding and maintenance. The primary objective of the workshop was to provide participants with a practical and informative experience, equipping them with hands-on skills and a comprehensive understanding of engine rebuilding.

GENERATIVE AI

Ms. Shivkanya C. Phutke, Assistant Professor, IIPR, attended an online Workshop on "Harness The Power Of Generative AI Using ChatGPT" organized by Teacher Talks Academy on 15th July 2023.

DISASTER RESPONSIVENESS

A special expert lecture on 'Disaster Responsiveness' was organized on the campus for students of Semester 9 of IAS on July 17, 2023. The lecture was delivered by Ar. Rushank Mehta, who shared his valuable insights and experiences from working in disaster-affected areas both nationally and internationally.

FACULTY ORIENTATION PROGRAM

Dr. Falguni Tandel, Principal, IIPR published a research paper titled - 'RP-HPLC Method Development and Validation for the Estimation of Mutual Pro Drug of PROPYPHENAZONE AND FLURBIPROFEN' in 'International Journal of Biology, Pharmacy and Allied Sciences', a Web of science indexed journal on July 07, 2023.



DISASTER RESPONSIVENESS

Professor (Dr.) Naresh Chhatwani, HoD, IDEA and Mr. Pratik Zaveri, Assistant Professor, IDEA, organized an expert lecture for students of semester-9 on 'Disaster Responsiveness'. The expert spokesperson, Ar. Rushank Mehta, presented his learning and experience while working in disaster-affected areas, nationally and internationally. The session was conducted on July 17, 2023.

STUDENT EMPOWERMENT PROGRAM

The Institute of Technology & Engineering (IITE) at Indus University organized an Induction and Student Empowerment Program from July 17 to July 18, 2023. The event aimed to welcome and empower the newly enrolled students and provide them with essential information about campus life, activities, rules, regulations, and academic opportunities. The Chief Guest for the function was Dr. Anil Bhardwaj, the Director of PRL (Physical Research Laboratory), and the Guest of Honour was Dr. Nidhi Buch, Head of Internships and Placement Division, GNLU Centre for IPR. Overall, the Induction and Student Empowerment Program - 2023 aimed to acquaint new students with the university's offerings and foster a sense of belonging and empowerment among them. The event provided guidance to the students to embark on their academic journey successfully.

SEMICONDUCTOR 'THE PATH TO FUTURE'

Department of Electronics and Communication, Indus Institute of Technology & Engineering organized a Webinar on "ASIC Chip Development Cycle : SEMICONDUCTOR IS THE FUTURE!' with Aimtron Electronics on July 18, 2023 from 9:30 AM onwards. The chief guest for the event was Mr. Ankit Gopani, Lead Design Verification Engineer, Aimtron Foundation. In his address, he emphasized the upcoming trends of the semiconductor industry and getting tuned with the skills required for ASIC chip design and verification engineer. The session provided an excellent opportunity for the students to learn from industry experts and prepare themselves for success in their future careers. HoDs, faculties along with approximately 30 student participants, attended the session.



Webinar on "Overview of ASIC Chip Development cycle and its Importance"
Know what the Industry wants!

SEMICONDUCTOR IS THE FUTURE!

Webinar - Overview of ASIC Chip Design & Development Process

18 JULY
TUESDAY
10:00 - 11:30 AM IST

Scan to Enroll for Webinar

Hear it from the industry expert, Ankit Gopani, California based Mr. Ankit Gopani with 18+ years of experience is taking time out to bring awareness to engineering students on their interests in the Semiconductor industry and understand the importance of VLSI, ASIC, Chip Design & Development concepts and its processes.

Ankit Gopani
Lead Design Verification Engineer
Aimtron Foundation

One of the Pioneers in the Semiconductor Industry, Mr. Mukesh Vasani, Founder & CEO, Aimtron Technologies, USA, believes in "Sharing knowledge and empowering youth to pursue their full potential" Aimtron Foundation inspired by Mr. Vasani's vision to bridge the skill gap between university education and industry need.

Mukesh Vasani
Founder & CEO, Aimtron Technologies
CEO, Aimtron Foundation

Aimtron Foundation
500 S. Hicks Road Palatine | IL 60067 (USA)
+91 70477 33527 | skilldevelopment@aimtronfoundation.org
www.aimtron.org

USA | Vadodra | Bengaluru | Rajkot

BANKING SYSTEM

The Computer Engineering Department, IITE organized an Expert Session on "Current Banking Trends and How Technology Can Disrupt the World and Banking Systems" on July 18, 2023. The session, conducted by Mr. Dharmesh S. Mehta, Senior Product Manager at Gulf International Bank, Bahrain, covered the history and evolution of banking, banking structure and divisions, banking technology trends, and the transformative impact of technology on the banking industry. Participants gained valuable insights into the latest advancements and their significance in reshaping the future of banking services.

VISIT TO ROZA-ROZI

The IAS and IDEA students of Semester 5 visited the historic Roza-Rozi Dargah Sharif in Sojali, Gujarat on July 19, 2023. The purpose of the visit was to analyze and draw insights from the construction of the tombs, focusing on aspects such as order, proportion, geometry, and material construction.

BOOK LAUNCH

IDS along with IAS and IITE (civil) organized an event of the book launch of Shri Mahesh Gogate's book titled "The Sacred Waters 'of' Varanasi, the Colonial Draining and Heritage Ecology" - on July, 19 2023. Alongside Shri Mahesh, the book was launched by Executive President, Dr Sandeep Chakravorty, Dr. Ritendra Sharma, Dr. Ishbir Singh, Dr. Naresh Chatwani and Mr. Prabodh Mishra. The launch event provided a platform for the author to showcase their talent and passion for storytelling, and it also served as an occasion for readers to connect with the creative mind behind the book.



TRAINING AND PLACEMENT

On July 19, 2023, IITE and the Training and Placement (T & P) jointly organized an expert session for the newly admitted B.Tech students in Computer Science, Civil Engineering, Information Technology, and Mechanical Engineering. The session, conducted by Mr. K.S.R. Swamy, DGM-Training and Placement. Mr. K.S.R. Swamy briefed the students on the T & P team's role in supporting their academic journey, including skill development training, resume writing, communication skills, and mock interviews.

TRAINING AND PLACEMENT

On July 20, 2023, IITE and T & P jointly organized an Industry Expert session for the newly admitted B.Tech (CE and IT) students at Indus University Auditorium. The session focused on the central theme "Tech for the Future." Mr. Nitin Bawsey, CEO of Bit2Sky and Sutradhar Chief Coach, as the Industry Expert emphasized the path to becoming a successful entrepreneur, with a special focus on startups and entrepreneurship.

TRAINING AND PLACEMENT

IITE and T&P jointly organized an Industry Expert session for newly admitted B.Tech (CE and IT) students on July 20, 2023. The theme was "Expectations of Corporate from the budding Engineers." Mr. Mayur Pabari, Founder and CEO of SmartSense Solutions, shared his successful entrepreneurial journey after graduation. He highlighted key insights on becoming a successful entrepreneur.

EXPERT SESSION

Indus School of Design, Indus University conducted a 2-day long seminar with Mr. Scott Frankum - American web designer & digital marketer, global supply chain expert, and former board member at San Francisco Museum of Modern Art. Students from all the courses of IDS attended on 20th and 21st July 2023.

The seminar helped the students to understand how the 4th industrial revolution has influenced the design of the modern industrial world, giving them a path to explore new topics of technological disruptions and how sustainability & circularity in design is being brought by various design experts from all over the world.

GARIMA PROJECT

Women Development Cell, Indus University organized an awareness session on Garima Project on 21st July 2023.

Garima Project is a unique initiative of the Gujarat Police to ensure the safety of women and senior citizens across the state of Gujarat. Research is being carried out to map the safety and well-being concerns and reality of women and senior citizens residing in cities and rural areas of Gujarat state. Furthermore, their suggestions and ideas will be examined, analyzed and conveyed so that Gujarat Police can take the necessary steps. Through the Garima survey, Gujarat Police is determined to improve the safety of women and senior citizens and to create a positive environment for people to live with dignity.



BUILDING DESIGN

Dr. Monika Shekhar Gupta, Assistant Professor, IDEA published a research paper on 'Ideal building design by creating Micro climate' in Journal of Emerging Technologies and Innovative Research (JETIR) ©2023 JETIR July 2023, Volume 10, Issue 7. The paper was published on July 21, 2023.



iACE

On July 21, 2023, a group of 51 students from the Mechanical Engineering department, accompanied by Prof. Rahul Patel, visited the International Automobile Center of Excellence (iACE) in Gandhinagar.



CAMPUS TO CORPORATE

The Indus Institute of Management (IIMS) had arranged a session on "Campus the Route to Corporate the Fruit" on 21st July 2023. The session was delivered by Honourable Executive Vice President Sir- Prof. (Dr.) Vedvyas J. Dwivedi which was attended 80 BBA sem-3 students. Sir focused on how recruiting firms emphasize more on soft skills than core skills. He further explained the importance of discipline and punctuality which are some of the aspects which when mastered can lead them to become successful entrepreneurs. The session deeply motivated the students as they vouched on working hard to learn the soft skills.



IMEA

Indus Mechanical Engineering Association (IMEA) and Department of Mechanical Engineering, IITE had organized industrial visit at "International Automobile Centre of Excellence (iACE), Gandhinagar on 21/7/2023. Total 51 Students of 3rd, 5th and 7th semester with Mr. Rahul Patel, faculty of mechanical engineering department participated for this industrial visit. The International Automobile Centre of Excellence (iACE) is a world class institute catering to 'end to end' training & development needs of the automobile ecosystem in India with specific focus on the Gujarat. The center hosts the latest 'state-of-the-art' infrastructure & technical labs to provide hands on learning experience.



PEDAGOGICAL SKILL DEVELOPMENT

Indus Institute of Pharmacy & Research (IIPR), Indus University organized a Teacher's training workshop on "Pedagogical Skill Development" on 22nd July, 2023 from 9:30am to 1:30pm. More than 85 faculty members of Indus University participated in the workshop. Dr. Vandana Patel, founder & Director of Teacher Talks Academy delivered the session on Effective classroom management and Emotional Freedom Techniques. The workshop was focused on Professional Development which covered strengthening the relationship between teachers and current generation students that makes teaching-learning enjoyable and interesting.



HOW TO WRITE A BOOK/BOOK CHAPTER

On July 22, 2023, Dr. A D Dhass, Assistant Professor, Mechanical Engineering Department, IITE conducted an insightful and beneficial expert session on "How to Write a Technical Book/Book Chapter." The session was specifically organized for the teaching fraternity, aiming to equip educators with valuable knowledge and guidance on the process of authoring technical books and book chapters.

VISIT TO AMITRON

On July 22, 2023, the Department of Electronics and Communication, IITE organized an Industrial Visit to AIMTRON in Baroda. AIMTRON is a prominent semiconductor company. 32 students along with 2 faculty members got the opportunity to witness cutting-edge technology during this visit. The aim of the visit was to create awareness about the exciting prospects in the semiconductor industry and support the government's vision for India's remarkable future in this field.

ORIENTATION PROGRAM

Institute of Sciences, Humanities and Liberal Studies (ISHLS) along with Indus Institute of Law (IIL) organized an orientation program on July 27, 2023. The expert talk was delivered by Mr. B.N. Dastoor sir. Overall, the orientation program served as a fundamental stepping stone for students embarking on their education. It not only equips them with essential knowledge and skills but also instills a sense of responsibility, ethical values, and camaraderie among peers. This comprehensive and well-structured program laid the foundation for a fulfilling and successful journey through the course and prepared students for the challenges and opportunities that await them in the profession.



FDP ON IPR

Lt. (Dr.) Parshva Shah, Assistant Professor, IIMS, Indus University participated in National Level Five Days FDP from 24th July to 28th July 2023 on "Research Methodology, Intellectual Property Rights and Quality Education and Assessment" organized under IQAC Initiative by Universal School of Administration, Affiliated to Bangalore University, Gururayanapura, Koluru Village, Ramohalli Post, Tavarekere Hobli, Bengaluru.



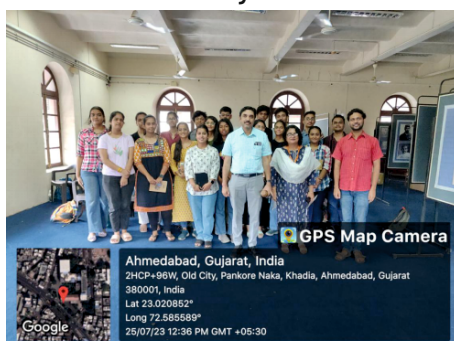
ORIENTATION PROGRAM

'Aagam - 2023' Orientation Program was organized by Indus Institute of Management Studies (IIMS) on Monday, 24 July 2023 in the auditorium, Main building, Indus University campus. The program was attended by 500+ first year students of MBA, BBA, BBA (Aviation) and B.Com. All the dignitaries of Indus University and guest speakers encouraged the students with their motivational and informative speeches. The students enthusiastically participated in various activities such as Chinese whisper, GK quiz and other management games.



VISIT TO AMC

Students of B. Arch. 3rd semester visited the AMC office - AWHCT office for Building Study and interactive session with Mr. Ashish Trambadia (Director at Ahmedabad World Heritage City Trust). The visit helped them to understand the structure of the building in terms of various materials used in roofing and flooring along with their details under the guidance of Dr. Monika Gupta, Assistant Professor and Aditya Jain, Assistant Professor from IDEA on 25th July 2023.



WEBINAR ON PROTECT YOUR APPS

Ms. Honey Shivnani, Assistant Professor, IICT successfully completed "Webinar on Protect Your Apps and APIs across a Distributed Cloud" organized by F5 Solutions, programme by f5 Solutions, USA on 25th July, 2023.



i3 CELL

i3 Cell of Indus Institute of Management Studies (IIMS) organized the 1st Session of the Institute Industry Interaction Session of the New Odd Semester on the 25th July, 2023 Tuesday at the Seminar Hall wherein Mr Ravi Shah, Partner, Cyril Amarchand Mangaldas, Ahmedabad, a top leading Law of India, was invited to deliver a Guest Session to the Management Students. The Topic of the Session was "Legal Insights for Future Business Leaders". Mr. Ravi Shah, made a PowerPoint Presentation. The session was followed by questions and answers. More than 124 Students along with Faculty Members of the Institute participated in the Session. Dr. Umang Patdiwala, HOD IIMS felicitated the Guest with a Sapling and a Memento.



ORIENTATION PROGRAM

The Deeksharambh- Student Induction Programme was organized on 24th and 25th July 2023. More than 100 participants attended the program including parents. The induction programme was aimed to welcome and familiarize the 1st-year students with the university, faculty, courses, campus facilities, and various aspects of student life. Keynote speeches were delivered by the Chief Guest, Dr. Hetal Shah, Founder, and Director of MEWRIT, Ahmedabad and the Guest of Honour, Mr. Sumit Agrawal, Hon. Secretary of IDMA, GSB, Ahmedabad. IIPR faculties introduced the institution, curriculum, club of IIPR, ERP etc. Eminent personalities and Heads of different cells of Indus University, introduced the facilities provided by Indus University.



ORIENTATION PROGRAM

Department of Computer Science, Indus Institute of Information and Communication Technology organized an Orientation function on 25th and 26th July, 2023 to welcome the newly enrolled students of programs Dual degree BCA+MCA, Dual degree B.Sc.(CA & IT) + MSc -IT, B.Sc. - Computer Science specialization in AI & ML, B.Sc.- Data Science, B.Sc. Cyber Security, MCA, MSc-IT and MSc Cyber Security. More than 550+ new joining students attended the orientation program. Chief guest of the day was, Mr. Vimal Rughani, CEO - Virtual Reality Systems, Gandhinagar. He interacted with all the students present and shared his various experiences as a student, as a teacher, as an employee and at last as an employer. He motivated the students to learn about the various technologies which are in demand.



PRINTING WORKSHOP

A printing workshop organized by Ms. Aditi Gupta, Indus Design School, for the students of IDS to explore more advanced printing techniques and incorporate cyanotype prints into their design projects, adding a unique touch to their artistic expressions. Also, students learn to work in a more collaborative way with new peer groups. This activity helped students to understand peer group design perspectives.



INDUSTRIAL VISIT

Department of Civil Engineering, IITE, organized an industrial visit on 27th July 2023. B.Tech students to ND Concretes, Jaspur, Ahmedabad & GUDA.Avas Yojna, Gandhinagar. Students learnt the recent practices in reinforced concrete, steel, & composite structures as well. They also observed how ready mix concrete adheres to strict quality standards, ensuring the structural integrity of various construction projects. The students were accompanied by faculties, Dr. Payal Mehta & Dr. Ankit Sodha.

EXPERT TALK

Department of Civil Engineering, IITE, Indus University organized a seminar on "Discover BIM: Unlocking the Power of Building Information Modeling" on Friday, July, 28 2023. The talk was delivered by Mr. Bhagyesh Patel, Technical Director - Khodiyar CAD Center, Ahmedabad for undergraduate students of Civil Engineering. Seminar benefited the students with fundamental exposure to Building Information Modelling (BIM) technology and advantages of using it at different stages of the project management to achieve better sustainability of infrastructures. The session enhanced the understanding of participants and also changed their view on the design & management process, live simulations of BIM integrations in different projects and future prospects of the technology. A total of 36 students and faculties from the department participated. Dr. Samir Patel coordinated the event.



MoU

Department of Electronics and Communication, IITE, Indus University signed an MoU with Aimtron Electronics PVT. LTD, Vadodara, Gujarat on July 28, 2023. Dr. Nagesh Bhandari, Presidential Secretariat, Dr. Sandeep Chakravorty, Executive President, R. K. Singh, Registrar, Dr. Suketu Jani, Deputy Registrar, Dr. Ishbir Singh, Director-IITE, and Dr. Vrushank Shah, HoD-ECE, and Mr. Mukesh Vasani, the Chairman and CEO of AIMTRON Group of Companies was present in the formal process of establishing this partnership.



TALENT SHOW

"TALENT SHOW" was organized by AIMS (Association of Indus Management Students) on 28/07/23 at the Auditorium, Main Building, Indus University which provided a platform to the fresher batch IIMS students to showcase their talents such as Dance (Solo and group), Singing, Karate and Beatboxing. About 43 students participated in the event and displayed incredible talents thereby making it a successful event.



PAPER PUBLICATION

Dr. Nikunj Valand Assistant Professor Chemistry, IISHLS presented a paper on "Synthesis, Characterization, Molecular Docking and in vitro Anticancer Screening of Some Novel Thiophene Derivatives". Impact Factor: 2.307 (Web of Science / Scopus) DOI: <https://doi.org/10.1002/slct.202203640>



PAPER PUBLICATION

Dr. Rawesh Kumar, Associate Professor, Department of Chemistry, ISHLS published a research article titled "Biodiesel production from *Sisymbrium irio* as a potential novel biomass waste feedstock using homemade titania catalyst" in SCl index international journal "Scientific Reports" (Publisher Nature, Impact Factor: 4.997).

scientific reports

OPEN Biodiesel production from *Sisymbrium irio* as a potential novel biomass waste feedstock using homemade titania catalyst

Hammed Ahmad Jan¹, Ahmed I. Osman², Ahmed S. Al-Fateh³, Ghazal Almutairi⁴, Igor Sutcu⁵, Raja Laftai-Obaid⁶, Nabli Al-Zag⁷, Rawesh Kumar⁸ & David W. Rooney⁹

Biomass waste streams are a possible feedstock for a range of eco-friendly products and a crucial alternative energy source for achieving carbon neutrality; therefore, the efficient management of biomass waste has taken on greater significance in recent years. Due to its well-comparable physico-chemical properties with fossil diesel, biodiesel is a potential substitute for fossil fuel. This study aimed to synthesize biodiesel from the widely available non-edible seed oil of *Sisymbrium irio*. A member of the Brassicaceae family via a transesterification procedure over a homemade TiO₂ catalyst. A 1:1.56 oil to methanol ratio, 95% biodiesel yield was obtained over 20 mg catalyst at 60 °C and 60 min. The ASTM methods were used to analyze the fuel properties. The quantitative and qualitative analysis was performed by FT-IR, GC-MS, and NMR spectroscopy. GC-MS study confirms 16 different types of fatty acids of methyl esters. FT-IR analysis showed important peaks that confirm the successful occurrence of biodiesel. ¹H NMR and ¹³C NMR showed important peaks for converting triglycerides into corresponding FAMES. The acid value (0.42 mg KOH/mg), flash point (136 °C), and water content (0.034%) of biodiesel are below the specified limit of ASTM D6751 whereas kinetic viscosity (3.71 mm²/s), density (0.874 kg/L), cloud point (-4.1 °C) and pour point (-9.4 °C) and high heating value (42.62 MJ/kg) fall within the specified range of ASTM D6751 test limit. The unsaturation degree and oxidative stability of biodiesel are above ASTM D6751 test limit. The physico-chemical properties of the SIB confirm that it is eco-friendly fuel and a competitive source for manufacturing biodiesel on a commercial scale. Furthermore, the SIB is energy friendly and has good fuel efficacy.

PAPER PUBLICATION

Dr. Rawesh Kumar, Associate Professor, Department of Chemistry, ISHLS published a research article titled "Enhanced direct methanation of CO₂ using Ni-based catalysts supported on ZrO₂, CeO₂-ZrO₂, and La₂O₃-ZrO₂: The effect of support material on the reducible NiO-interacted species and catalytic activity" in SCl index international journal "Molecular Catalysis" (Publisher Elsevier, Impact Factor: 5.089).

PAPER PUBLICATION

Dr. Rawesh Kumar, Associate Professor, Department of Chemistry, ISHLS published a research article titled "Rh promoted Ni over yttria-zirconia supported catalyst for hydrogen-rich syngas production through dry reforming of methane" in SCl index international journal "Energy Science & Engineering" (Publisher Wiley, Impact Factor: 4.035).

Energy Science & Engineering

ORIGINAL ARTICLE | Open Access | ©

Rh promoted Ni over yttria-zirconia supported catalyst for hydrogen-rich syngas production through dry reforming of methane

Ahmed S. Al-Fateh¹, Kenit Acharya, Ahmed I. Osman², Anish H. Fakeeha, Ahmed A. Ibrahim, Abdulaziz A. M. Abahussain, Abdulaziz Bagabas³, Ahmed E. Abasaeed, Rawesh Kumar⁴

First published: 13 July 2023 | <https://doi.org/10.1002/ese3.1520>

SECTIONS

PDF TOOLS SHARE

Abstract

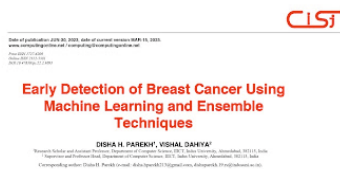
Rh-promoted YZr-supported Ni catalyst (5Ni/YZr) is investigated for DRM and characterized with X-ray diffraction, Raman, infrared spectroscopy, cyclic reduction-oxidation-reduction temperature programmed experiment, thermogravimetry, and transmission electron microscope. Over 5Ni/YZr, some active sites become inactive under the CO₂ stream and limit H₂ yield to ~71%. Upon 4 wt% Rh addition over 5Ni/YZr; more than one type of stable active sites (Rh and Ni) generates, moderate basic sites are enhanced, wide ranges of CO₂-interacted surface species (especially bidentate CO₂-adsorbed species) are grown and graphitic carbon proportion over spent catalyst declines. This resulted in 87.35% H₂ yield and 86.73% CO yield up to 420 min. 5Ni4Rh/YZr catalyst maintains ~80% H₂ yield at the end of 27 h of DRM reaction.

PAPER PUBLICATION

Dr. Nikunj Valand Assistant Professor Chemistry, IISHLS presented a paper on "Discovery of Anti-Breast Cancer Thiophene Sulfonamide Derivatives: Design, Synthesis, Molecular Docking against EGFR, MM-PBSA, MD Simulations, ADME/Tox, and in vitro Studies". Impact Factor: 2.307 (Web of Science / Scopus) DOI: <https://doi.org/10.1002/slct.202301596>

PAPER PUBLICATION

Dr. Disha H. Parekh Assistant Professor, IICT published research work titled 'Early Detection of Breast Cancer Using Machine Learning and Ensemble Techniques' in the prestigious International Journal of Computing.



ABSTRACT Breast Cancer is found to be the most dangerous and most commonly affecting disease in the world by WHO. The severity of breast cancer and early diagnosis of it has gained the attention of researchers to save lives from such devastating disease. Early prediction of breast cancer has proved to be a better idea for researchers to machine learning supervised algorithms. In the paper, the use of various machine learning algorithms along with the ensemble algorithm is shown. The results obtained are highly accurate in helping one correctly predict cancer. The paper aims at early diagnosis of breast cancer with a handful number of saving patients suffering from the disease by allowing them to know whether the diagnosed tumor is cancerous or non-cancerous, being Malignant and Benign respectively. This paper would be useful and aiding for those who are saved researchers in prediction and diagnosis of breast cancer using machine learning.

KEYWORDS Breast cancer prediction, Ensemble Machine Learning algorithm, Artificial, XGBoost, FI, SVM.

1. INTRODUCTION

According to the statistics of World Health Organization during 2020, breast cancer has been the most common disease of the world. It is noted that during 2020, 1.2 million of women across world had been identified with breast cancer and by the end of the month almost 78 million of women had been surviving in the world with the second place for breast cancer. Breast cancer has been an invasive disease since 1930 and is right now an area of attraction for researchers to solving this invasive disease and bring awareness amongst the population with early detection and diagnosis of the disease. Breast cancer disease can be treated effectively when detected in its early stages. This early detection is an area where many researchers are working today. There are several researchers working on machine learning and AI to discover for identifying for malignant disease. Thus, cancer biology is found to be getting up the interest of researchers across the world.

Breast cancer is not contagious or hereditary disease. It is a disease spreading solely due to malignant cells. It can be a kind of medical illustration due to its ability to migrate in gene material, particularly protein sequencing. Though breast cancer is mostly observed in female, some few males are also victims to this disease. The disease is caused by a lump

in the breast. This lump is painless but it is abnormal and hence should be treated regularly by consulting surgeons. There are four main types of breast cancer: Ductal Carcinoma In Situ (DCIS), Invasive Ductal Carcinoma (IDC), Invasive Lobular Carcinoma (ILC), and Invasive Mucinous Carcinoma (IMC). These four types of breast cancer are the most common types of breast cancer. About 1% of females in general develop breast cancer during their lifetime (N et al., 2020). If compared, 80% of females who have a harmful BRCA2 variant and 40% of females who have a harmful BRCA1 variant will progress breast cancer by 70-80 years of age (Kachadourian et al., 2020).

Breast cancer is represented in two different ways. The lump in breast cancer can be either cancerous or non-cancerous. All those lumps which are cancerous are usually called as benign type which means there exists no cancer. While all those lumps which are cancerous are termed as malignant cancer. These malignant cancers need diagnosis using biopsy of the lump size or can be diagnosed using breast imaging.

Breast cancer can be treated with 90% of survival rate when diagnosed in early stage (Kaplan et al., 2020). The treatment consists of end chemotherapy, intravenous chemotherapy,

RSP

Dr. Monika Gupta, Assistant Professor and Aditya Jain, Assistant Professor from IDEA, organized a two-week Related Study Program (RSP) for the Semester-III students. Through activities like orientation sessions, fieldwork and making measured drawings students were acquainted with the formulation of spaces within the constraints of materials used and learnt about the properties of different materials that can be used in structural elements and the elements of Space-making in a historically rich environment. For the same, the students visited two chowks in Mandvi ni pol & queens and Habshi Nobleman tomb at Sarkhej Roza.



ANECHOIC CHAMBER

Indus University's Electronics and Communication Department, IITE has been selected to establish an Anechoic Chamber at IEEE MAPCON 2022. The chamber will create an optimal environment for precise antenna / RF measurements and research, enhancing our research capabilities. The official handover is on August 15, 2023, marking a momentous occasion for our department.

"Happy Independence Day!

May the spirit of freedom and unity fill your heart and bring joy to your celebrations. Let's honor the sacrifices of those who fought for our liberty and continue to cherish the values that make our nation great. Have a wonderful and patriotic day!"



Dr. Rajeshri Patel-

"A person stands for free and equal access to information for all"

In one of the most enriching corners of Indus University, sits a smiling face -welcoming all who visit the University library. She is none other than our Dr. Rajeshri Patel. She is working as Associate Librarian and has been with Indus University since 15 years. She has completed M.A. and doctorate in Library Science. She is a diligent person who is always engrossed in her work. i360 team interacted and found interesting facets of her personality. Madam is a deeply spiritual person and has been practicing yoga for the past 18 years.

She is a voracious reader and loves the company of books. Her love for books was kindled by a librarian friend of hers who used to share books with her. She wants more and more students to visit the library and gain knowledge. She relishes Gujarati food and has a sweet tooth. She is full of life, loves travelling and gets inspiration from books. Dr. Rajeshri enjoys reading autobiography of personalities like Swami Vivekananda, Benjamin Franklin and others. She admires listening to Sadhguru. Her message for students is 'Do your best in whatever situation you are!'



Interviewed by: Dr. Nisha Thankachen & Ms. Priya Singh Chauhan

A GOOD LIBRARY
WILL NEVER BE TOO NEAT, OR TOO DUSTY
BECAUSE SOMEBODY WILL
ALWAYS BE IN IT
TAKING BOOKS OFF THE SHELVES
AND STAYING UP LATE
READING THEM
~LEMONY SNICKET

Team i360

Ms. Nisha Thankachen
Ms. Priya Singh Chauhan
Ms. Mansi Mehta
Dr. Monika Gupta
Dr. Samir Patel
Capt. Umang Jani

Mr. Monil Salot
Dr. Daisy Kurien
Ms. Meeta Agrawal
Dr. Nikita Gadani
Ms. Parita Shah
Ms. Abheepsa Vyas