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LECHEMNEWS

DEPARTMENT OF CHEMICAL ENGINEERING
LUKDHIRJI ENGINEERING COLLEGE, MORBI- 363642

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Why the NBA?

The purpose of the accreditation by NBA is to promote and recognize excellence in technical education in colleges and universities - at both the undergraduate and post graduate levels. Institutions, students, employers, and the public at large all benefit from the external verification of quality provided through the NBA accreditation process. They also benefit from the process of continuous quality improvement that is encouraged by the NBA's developmental approach to promote excellence in technical education. Through accreditation, the following main purposes are served:

- Support and advice to technical institutions in the maintenance and enhancement of their quality of provision;
- confidence and assurance on quality to various stakeholders including students;
- assurance of the good standing of an Institution to government departments and other interested bodies;
- enabling an Institution to state publicly that it has voluntarily accepted independent inspection and has satisfied all the requirements for satisfactory operation and maintenance of quality in education.

LUKDHIRJI ENGINEERING COLLEGE

Vision

To provide quality engineering education and transforming students into professionally competent and socially responsible human beings.

Mission

1. To provide a platform for basic and advanced engineering knowledge to meet global challenges.
2. To impart state-of-art know-how with managerial and technical skills.
3. To create a sustainable society through ethical and accountable engineering practices.

MESSAGE FROM PRINCIPALS DESK

Dear students and faculty members, this is a matter of great pleasure that the first newsletter of the Chemical engineering department is brought to you.

In this era, we can witness advancement and technological development globally. Providing quality engineering education is the prime concern of educational institutes. It transforms students into professionally competent and socially responsible human beings.

Engineering colleges are trying their best to provide quality engineers as per the requirements of the industry. Quality education contributes to making a beautiful world. To accomplish this mission of providing professionally competent & socially responsible chemical engineers, the chemical engineering department of Lukhdhirji Engineering College, Morbi has initiated numerous activities related to students and faculties. I am sure that the energy and commitment of our dynamic students and highly qualified faculties will lead us to a great height and make the state and nation proud.

With best wishes,

Dr.Saurabh Pandya

THE CHEMICAL ENGINEERING DEPARTMENT

VISION

To develop professionally competent and socially responsible chemical engineers by providing quality education.

MISSION

1. To provide sound basic engineering knowledge to have a successful career in a professional environment.
2. To develop skill sets among the students to make them professionally competent.
3. To cater to ethically strong engineers who shall be able to improve the quality of life and to work for sustainable development of society.

MESSAGE FROM HOD

Greetings. Hope you may find this e-copy of the 'LECHEMNEWS", the Chemical Department's newsletter in the best of your health. It gives me immense pleasure to present this first issue of the newsletter of the Chemical Engineering Department, L E College, Morbi. I congratulate the whole team lead by Prof. A.D. Kalariya on this achievement.

At the Chemical Engineering Department, faculty members and students are always trying to perform best. This newsletter will provide a platform to highlight their achievements.

The Chemical Engineering Department at Lukhdhirji Engineering College is the youngest department of the institute, started in 2008. Department is committed to providing quality education to its students. The department has highly motivated faculty members with very good academic experience. Their expertise caters to diverse domains in Chemical Engineering.

The faculty members of the department are actively involved in various research and development in various areas like catalysis, advanced wastewater treatment, thermodynamics, energy, nanotechnology, polymer etc.

Our students have been serving industries in various capacities since 2012. For higher studies, the presence of our students can also be marked in IITs and foreign Universities. Our alumni are running business organizations successfully

An E-copy of this issue will be circulated to all our alumni/alumnae and other stakeholders. Hope everyone may like this. Your feedback and suggestions surely believe to improve this newsletter in future. Thank you all for your kind support to bring this first issue .

Regards,

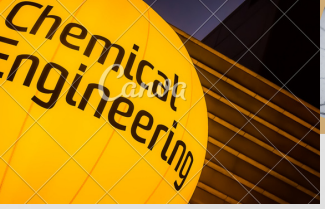
Dr R.K. Mewada

Programme Educational Objectives

- PEO-1 To impart knowledge and skills to students to make them professionally competent in chemical process industries.
- PEO-2 To motivate students for higher studies in technical and management fields.
- PEO-3 To prepare students having soft skills along with leadership quality and management ability to make them successful entrepreneurs.
- PEO-4 To implant the ethical principle and norms of engineering practices in terms of health, safety, and environmental context for the sustainable development of society.

Programme Specific Outcomes

- Apply the knowledge of chemical engineering to accomplish the contemporary need of chemical & Allied Industries.
- To execute the chemical engineering principle and modern engineering tools to design system by considering safety, cost, health, legal, cultural and environmental aspects.



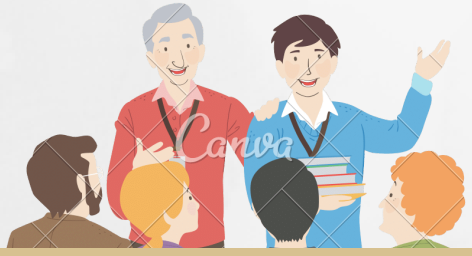


Programme Outcomes

Engineering Graduates will be able to:

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

Faculty at a Glance



Name	Degree	Area of Specialization	Designation
Dr. Raju Mewada	Ph.D.	Catalysis & reaction engineering, Process & Equipment Design& development, Renewable energy & renewable resource utilization	Professor
Prof. Shital Amin	M.E.	Polymerization Kinetics, Modeling & Simulation	Associate Professor
Prof. Deepesh Mehta	M.Tech	Chemical Engineering	Assistant Professor
Prof. Ashish Baldania	M.Tech	Renewable Energy & Waste management	Assistant Professor
Prof. Ashishkumar Kalariya	M.Tech	Heat Transfer, Optimization	Assistant Professor
Prof. Girish Vegad	M.E Ph.D.(pursuing)	Thermodynamics, Modelling & Simulation	Assistant Professor
Prof. Suhagkumar Patel	M.E.	Process Design equipments, Caps, Process control	Assistant Professor
Prof. Mehukkumar Chauhan	M.E.	Mechanical Operation, Chemical Process, Mass Transfer, Fluid Flow Operation	Assistant Professor
Prof. Bansi Kariya	M.E.	Seperation technology, Nano-technology, Chemical process industries	Assistant Professor

Dr. Raju Mewada

Prof. Shital Amin

Prof. Deepesh Mehta

Prof. Ashish Baldania

Prof. Ashishkumar Kalariya

Prof. Girish Vegad

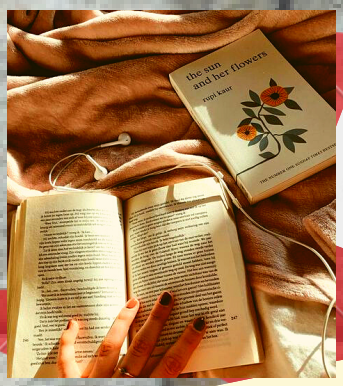
Prof. Suhagkumar Patel

Prof. Mehukkumar Chauhan

Prof. Bansi Kariya

Apart from conventional departments, LE. College Morbi has several other important organizations and cells which are run jointly by students, alumni and institute and cater to the purpose as defined in their respective charter. Following is a glimpse of some of the organizations & cells and their activities and aims.

LENCO ALUMINI ASSOCIATION



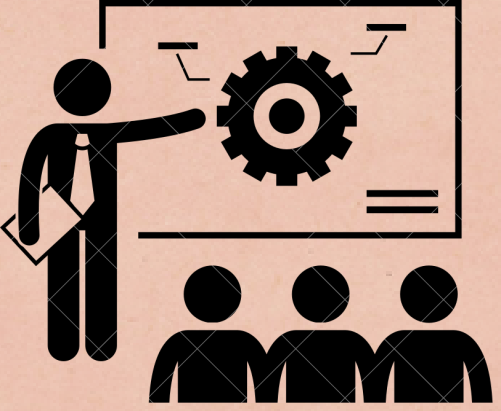
CENTRE OF CREATIVITY

LECM Training & Placement Cell

कर्मण्ये वाधिकारस्ते

TRAINING & PLACEMENT CELL

NCC



Pieces of training attended by faculty

Comprehensive Online Intellectual Property Rights

Organized by: Gujarat Student Start-up and Innovation Hub (i-hub)(KCG)

Start Date: 6/7/20 End Date: 14/9/20

Attended by: Mr RK Mewada (Professor)

Mr Deepesh Mehta (Assistant Professor)

Mr GIrish Vegad (Assistant Professor)

Mrs Shital Amin (Associate Professor)


i-Hub

Certificate of Participation

Gujarat Student Startup and Innovation Hub (i - Hub)

This certificate is presented to

MR RAJUBHAI KANAIYALAL MEWADA

of Lukhdhirji Engineering College, Morbi

In recognition for successful completion of Certificate Course on

"COMPREHENSIVE ONLINE INTELLECTUAL PROPERTY RIGHTS (IPR)"

conducted during July 6, 2020 to September 14, 2020

Hiranmay Mahanta

CEO, i-Hub

Anju Sharma, IAS

Chairperson i-Hub & Principal Secretary to Government of Gujarat

KNOWLEDGE PARTNERS

cfam

ATAL

MHRD'S INNOVATION CELL (GOVERNMENT OF INDIA)

NRDC

Certificate No: 10100104465


i-Hub

Certificate of Participation

Gujarat Student Startup and Innovation Hub (i - Hub)

This certificate is presented to

MR DEEPESH KAUSHIK MEHTA

of Lukhdhirji Engineering College, Morbi

In recognition for successful completion of Certificate Course on

"COMPREHENSIVE ONLINE INTELLECTUAL PROPERTY RIGHTS (IPR)"

conducted during July 6, 2020 to September 14, 2020

Hiranmay Mahanta

CEO, i-Hub

Anju Sharma, IAS

Chairperson i-Hub & Principal Secretary to Government of Gujarat

KNOWLEDGE PARTNERS

cfam

ATAL

MHRD'S INNOVATION CELL (GOVERNMENT OF INDIA)

NRDC

Certificate No: 10100100401

THE PAPER PUBLISHED BY FACULTY

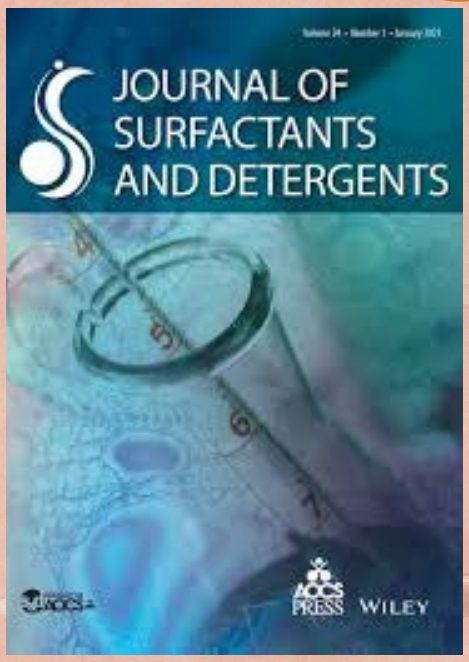
Prof. Girish Vegad

Title of the Paper: Viscosity Reduction of Indian Heavy Crude Oil by Emulsification to O/W Emulsion Using Polysorbate-81 Using Polysorbate-81

Name of Journal:- Journal of Surfactants and Detergents

ISSN/ISBN/DOI no. of Journal:- 10.1002/jsde.12470

Year of Publishing: 2020



Prof. Shital Amin

Title of the Paper: Etherified Amino Resins with Tailor-Made Properties: A Holistic Approach via Polymerization

Name of Journal:- Industrial & Engineering Chemistry Research

ISSN/ISBN/DOI no. of Journal:-

Year of Publishing: 2020

Departmental Activities

A series of Webinars were arranged by the faculty for a better understanding of the profession after graduation

1.Recent trends in the Chemical Engineering

Expert Speaker: Prof. Piyush Nakum

Date: 30/9/20

2.Recent trends in Chemical Engineering

Expert Speaker: Mr Shashank Mapara

Date: 13/10/20

Chemical engineering is the branch of engineering that deals with chemical production and the manufacture of products through chemical processes. This includes designing equipment, systems and processes for refining raw materials and for mixing, compounding and processing chemicals to make valuable products.

George E. Davis, an English engineer, is credited with founding the field of chemical engineering in the late 19th century

ACADEMIC ACHIEVEMENTS

The year 2020 has proven to be a hard patch over the globe, but we all have learned to strive and survive anyways. These difficult times have also put education at stake. But, as the motto of our college is:

कर्मण्येवाधिकारस्ते मा फलेषु कदाचन ।
मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि । ।

we have been successful in achieving astonishing academic results for all the semesters. The results of all the semesters have been summarized as below:

SEMESTER-VIII

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students failed in exam	Overall result of course
1	VIII	2180502 PETROLEUM REFINING AND PETROCHEMICALS	63	0	100
2	VIII	2180503 PROCESS MODELING, SIMULATION & OPTIMIZATION	63	0	100
3	VIII	2180504 Project - II	63	0	100
4	VIII	2180505 MULTI COMPONENT DISTILLATION (Dept. Ele.)	63	0	100
5	VIII	2180507 TRANSPORT PHENOMENA	63	0	100

SEMESTER-VI

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students failed in exam	Overall result of course
1	VI	2160001 Design Engineering – II B	59	4	93.2
2	VI	2160501 MASS TRANSFER OPERATION-II	59	4	93.2
3	VI	2160503 PROCESS EQUIPMENT DESIGN-I	59	4	93.2
4	VI	2160504 POLLUTION CONTROL & SAFETY MANAGEMENT	59	4	93.2
5	VI	2160506 CHEMICAL REACTION ENGINEERING – I	59	4	93.2
6	VI	2160507 ADVANCED SEPARATION TECHNIQUES (Dept. Elc.)	59	4	93.2

SEMESTER-IV

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students failed in exam	Overall result of course
1	IV	3140005 Design Engineering 1 B	63	4	93.62
2	IV	3140503 Heat Transfer	63	4	93.62
3	IV	3140507 Chemical Engineering Thermodynamics-II	63	4	93.62
4	IV	3140509 Unit Processes & Chemical Technology	63	6	90.48
5	IV	3140509 Pollution control & safety Management	63	4	93.62
6	IV	3140510 Numerical Methods in Chemical Engineering	63	4	93.62

SEMESTER-II

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students failed in exam	Overall result of course
1	II	3110003 English	74	3	95.0
2	II	3110004 Basic Civil Engineering	74	1	99.0
3	II	3110007 Environmental Science	74	1	99.0
4	II	3110012 Workshop	74	1	99.0
5	II	3110013 Engineering graphics and Design	74	2	97.3
6	II	3110015 Maths-II	74	2	97.3

A Brief History Of Time.

LEC Morbi was established as a polytechnic in 1931, then known as Morvi Technical Institute (MTI) and was upgraded to a full-fledged degree engineering college in 1951 when the Late Honorable H.H. Maharaja Thakore Shri Sir Lukhdhirji Waghji Sahib Bahadur GBE KCSI of Morvi state donated his palace with 40 acres (160,000 m2) of land on the bank of river Machhu and the institute was named after him.

The Chemical Engineering Department at L.E College Morbi is the youngest department of the institute started in 2008. Originally the chemical engineering department was in the old campus, it was after 3 batches were passed that the new building has been available