





NEWSLETTER
JULY - DECEMBER 2024

RUBBEROMATIC

Departmental Website
www.rubbertech.co.in

RUBBER TECHNOLOGY DEPARTMENT

↗ L. D. College of Engineering

THE RESOURCES BEHIND THE WHEELS OF TECHNOLOGY

Rubber technology is a specialized field that focuses on transforming rubbers or elastomers into functional products. This includes the processing of both natural and synthetic rubbers, as well as latex production, to meet industry standards. Rubber Engineering Technology programs provide students with a comprehensive understanding of the field, covering the mixing and testing of rubber compounds, processing techniques, product and mold design, and material selection.

One of the key areas of rubber technology is the development of rubber compounds with specific properties such as elasticity, durability, and heat resistance. Students learn to engineer compounds to meet stringent industry requirements and design molds that ensure products meet performance standards.

The increasing demand for automobiles has significantly boosted the rubber industry, particularly in the production of tires, seals, gaskets, and hoses. As the automotive sector grows globally, the need for high-performance rubber materials has skyrocketed. Innovations in automotive technology, such as electric vehicles and advanced safety features, further drive the demand for specialized rubber products.

In India, the rubber industry is expanding rapidly, offering a wealth of career opportunities in manufacturing, design, and product development. The global demand for experts in rubber technology is also rising, making this a lucrative and rewarding field.
Rubber technology professionals play a crucial role in driving innovation and meeting the evolving needs of industries worldwide.

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Vision

To achieve global standards in quality of Education, Research & Developments, Training in rubber technology and to empower the students to be leader in rubber technology.

Mission

- To Develop Industry Oriented Rubber Technology graduates to accept the challenges of society by, Teaching Rubber Technology knowledge through highly qualified and trained faculty in encouraging environment.
- Creating awareness about the needs of industries and society through alumni and Industry-Institute interactions.
- Encouraging them to think inventively and introduce them to various research activities through advanced project works related to Rubber Technology.
- Supporting them to prepare in all aspects like communication, entrepreneurship, and interpersonal skills.

MESSAGE FROM H.O.D.



Prof. (Dr.) R. N. Desai

Rubber Technology is a specialized and dynamic field focused on transforming rubbers or elastomers into useful, innovative products. At the Department of Rubber Technology, L. D. College of Engineering, we take great pride in our continuous growth in academics, research, and industry placements. Our vision is to set global standards in education, research, and training while empowering students to become leaders in the field of Rubber Technology.

We are committed to providing our students with a well-rounded education that blends intellectual growth with hands-on experience. This unique approach equips them to meet a variety of societal needs, fostering confidence, self-reliance, and responsibility necessary to serve our nation. With our hardworking students, dynamic faculty, and collaborative culture, our department creates an environment of excellence.

The field of Rubber Technology encompasses diverse areas, from the processing of natural and synthetic rubber to the design of products that meet industry standards. Our curriculum ensures that students gain advanced knowledge in mixing, testing, and processing rubber compounds, as well as product and mold design.

The growing demand for rubber in industries, especially with the rise of the automotive sector, makes Rubber Technology a promising and rewarding career path. With a booming rubber industry both in India and globally, the demand for skilled professionals is on the rise.

I am confident that our students will continue to excel and uphold the department's reputation with their professional competence and dedication.
I wish them all the best in their future endeavors.

- Prof. (Dr.) R. N. Desai

MAJOR EVENTS

The Rubber Technology department has arranged a Placement of IRM Offshore & Marine Engineers Pvt Ltd. for BE Rubber Technology students on 12th August, 2024.

The Rubber Technology department has arranged a Placement of Raychem RPG Pvt Ltd for BE Rubber Technology students on 13rd August, 2024.

The Rubber Technology department has arranged an event, SAHAYOG-2024, HR Meet at Rubber Technology Department on 19th October 2024.

The Rubber Technology department has arranged a Placement of BKT Tyres for BE & ME Rubber Technology students on 28th November, 2024.



DEPARTMENTAL ACTIVITIES

- **Dr. R. N. Desai has arranged an expert talk on "Advanced Rubber Equipments and Instruments" on 5th August, 2024 for UG Rubber Technology students. The session was delivered by Mr. Atul Shah, Director, Pioneer Rubber Industries.**
- **The Rubber Technology Department arranged pedagogy with Mr. Pankaj Bagora, Technical Head, Rubber King Tyre Pvt. Ltd., Viramgam on "Employment opportunities in Rubber Industries" on 12th July 2024 and attended by faculties.**
- **Dr. R. N. Desai has arranged and Prof. Sunil Padhiyar has coordinated an expert talk on "Foreign University search and admission process, by Bit track Consultancy PVT LTD" on 1st October, 2024 for UG Rubber Technology students.**
- **Dr. R. N. Desai has arranged and Prof. Sunil Padhiyar has coordinated a Hands-on workshop on "Differential Scanning Calorimetry" for ME rubber Technology and ME CAPD Students on 24th October 2024.**
- **Dr. R. N. Desai has arranged and Prof. Aanal Bhatt has coordinated a poster competition on "Swatchchta hi Seva" for UG students of Rubber Technology on 11th October 2024.**
- **Dr. R. N. Desai has arranged and Prof. Bhakti Patel has coordinated a poster competition on "Bharat Vikas Varsh" under the celebration of "Vikas Saptah" for UG students of Rubber Technology on 11th October 2024.**
- **Dr. R. N. Desai has arranged an expert talk on "The Sustainable choice: Biopolymer solutions" on 6th December, 2024 for UG & PG Rubber Technology students. The session was delivered by Mr. Prakash Patel, MD Vision Industries.**
- **The Rubber Technology Department arranged pedagogy with Ms. Nilam Shah, Rubber Alumni on "Present Scenario of global opportunities for rubber technologist" on 17th December 2024 and attended by faculties.**
- **The Rubber Technology Department arranged pedagogy with Mr. Vikram Dholeriya, senior executive, Manseriya Tyres, on "Advanced reinforcing additives for Tyres" on 21st December 2024 and attended by faculties.**

INDUSTRY INTERACTION

- **A Technical Guidance session was scheduled for 12th July 2024 for BE VII students. This session was conducted online in collaboration with Ceat Tyres, and the coordinator for the event was Prof. Rupande N. Desai. A total of 7 participants attended.**

- **A Technical Talk was held on 10th September 2024, targeting BE VII students. The session was conducted online in partnership with Speciality Silica Pvt Ltd., with Prof. Sunil Padhiyar serving as the coordinator. A total of 20 participants participated in this event.**

- **Another Technical Talk took place on 9th August 2024, aimed at M.E II students. This session was conducted online in collaboration with Mitsufuku Compound Pvt Ltd., coordinated by Prof. Bhakti Patel. A total of 10 participants attended.**

- **A Technical Talk was conducted on 19th October 2024, targeting both BE and M.E students. The session was held at the Rubber Technology Department, with Prof. Bhakti Patel and Prof. Sunil Padhiyar serving as coordinators. A total of 25 participants attended.**

- **Another Technical Talk was held on 27th November 2024, aimed at BE VII students. This session was conducted online in collaboration with BKT Tyres, coordinated by Dr. Rupande N. Desai and Prof. Sunil Padhiyar. A total of 10 participants participated in the event.**

- **A Technical Talk was conducted on 27th December 2024, targeting B.E. V students. The session was held at the Rubber Technology Department, coordinated by Prof. Aanal Bhatt and Prof. Gyanu Bhatt, with 20 participants in attendance.**

- **Additionally, a Technical Guidance session was held on 30th December 2024, aimed at B.E. V students. This session was also conducted at the Rubber Technology Department, coordinated by Dr. Rupande N. Desai and Prof. R. Y. Modan, with 20 participants attending.**

PAPERS PRESENTED/PUBLISHED

Prof. Sunil Padhiyar presented a paper titled "Lignin as a Sustainable Material for Rubber: Enhancing Performance and Reducing Environmental Impact" at a seminar on "Sustainability, Circularity in Rubber Industries: Role of Quality, Cost, Safety, and Productivity", organized by the Indian Rubber Industries (IRI) in Rajasthan. The seminar was held on 23rd and 24th August 2024 at Udaipur.

Prof. Sunil Padhiyar published a paper titled "Photodegradation of Low-Density Polyethylene Using CaO Nanoparticles as a Catalyst" in the journal "Nanotechnology Perceptions" (ISSN: 1660-6795) in July 2024.

FACULTY ACHIEVEMENTS

- **Prof. Gnanu Bhatt guided Mualik Chauhan and his team in the Internal Hackathon for SIH 2024 on Problem ID 1557 (Smart Automation). The team was selected for the next round based on their performance.**

- **Additionally, Prof. Gnanu Bhatt was granted a patent by the Patent Office, Government of India for a period of 20 years. The patent, titled "Method for Detecting Density of Open Cellular Hydrophilic Porous Material Without Porosity," was granted under the applicants' names: Dhruvkumar Patel, Shyam Chauhan, Daxit Soni and Gnanu G. Bhatt.**

- **Prof. Gnanu G. Bhatt was granted a patent by the Patent Office, Government of India for a period of 20 years. The patent, titled "Methods for Synthesis of Nano Fiber from Rice Husk," was granted with the following applicants: L. D. College of Engineering, Dhruvkumar Patel, Gnanu G. Bhatt, Saumya Rathod, Sukanya Rathod, Shyam Chauhan, Maulik Chauhan and Denis Savaliya.**

- **Prof. Gnanu G. Bhatt guided the Team “Tire Mitra”, which was selected for the Grand Finale of Smart India Hackathon 2024.**



DISSERTATION

- Mr. Maulik Chauhan has completed a dissertation phase I titled "Sustainable Reinforcement of Rubber Compound Using Recycled PET," under the guidance of Prof. Rupande N. Desai and Prof. Sunil Padhiyar.

- This dissertation focuses on enhancing rubber compound properties using recycled PET as a sustainable reinforcement. It aims to improve durability, tensile strength, and abrasion resistance while promoting eco-friendly practices. The study highlights waste reduction, resource conservation, and the development of green materials in the rubber industry.

- Mr. Dhruv Patel has worked on a dissertation titled "Development of Silicone Rubber – PLA Blend for Advanced Material Applications," guided by Prof. Rupande N. Desai and Prof. Sunil Padhiyar.

- This dissertation explores developing a Silicone Rubber–PLA blend for advanced material applications, focusing on improving mechanical properties, thermal stability, and biodegradability. The study aims to create eco-friendly, high-performance materials suitable for industries like automotive, electronics, and medical, promoting sustainable innovation in polymer technology.

STUDENTS' ACHIEVEMENTS

- **Parth Savani and Aman Shaikh, UG 2023 batch, Rubber Technology department has got admission in IIT Delhi.**
- **Dhyan Patel, Student of Rubber Technology B.E. Sem VII visited and attended the Rubber Tech China 2024 Exhibition at Shanghai China on 19th, 20th and 21st September 2024.**
- **Sarthak Patil, Student of Rubber Technology B.E. Sem V attended the "Mastering Data Science: A Journey from Fresher to GenAI Expert", conducted by Innomatics Research Labs on 28th September 2024.**
- **Students of Rubber Technology B.E. Sem I, III, V and VII and M.E. II visited the Exhibition for RE - INVEST 2024 from 16th to 18th September 2024 at Mahatma Mandir, Gandhinagar, Gujarat.**
- **Maulik Chauhan, pursuing master's degree in Rubber Technology Sem III, participated in RBI@90 Nationwide Online Quiz 2024 on 21st September 2024.**
- **Maulik Chauhan, pursuing master's degree in Rubber Technology Sem III, participated in Gillette Guard 'Safalata apni Mutthi Mein' Grooming Workshop.**
- **Maulik Chauhan and his team participated in Smart India Hackathon 2024 and won the Internal Hackathon in the guidance of Prof. Gnanu G. Bhatt.**
- **Maulik Chauhan & Dhruv patel, Students of M.E II attended a Technical Seminar organized by AIRIA, Western region, Gujarat Chapter at Fairfield by Marriot, Ahmedabad on 09th August, 2024.**
- **Pratik Bagul, Tejas Patel, Veerendra and sarthak Patil attended a Seminar on Sustainability and Circularity In Rubber Industries on 23 rd and 24th August 2024 at Udaipur.**
- **Mr. Maulik Chauhan, Mr. Dhruvkumar Patel, Mr. Tushar Dholariya, Mr. Meetkumar Patel, Mr. Aayush Sharma and Ms. Chinmayi Dholam were selected for the Grand Finale and represented their project at the national level in the "SMART INDIA HACKATHON (SIH) 2024 Hardware Edition." The event was organized by the Ministry of Education Innovation Cell and AICTE from 11th to 15th December 2024.**
- **Post-Graduate, final year student of Rubber Technology, Mr. Maulik Chauhan and Under-Graduate (B.E. / B.Tech) final year students Mr. Pratik Bagul, Mr. Mikhil Perinchery, Mr. Siddhant Patil, Mr. Devanshsingh Bhadoriya, Mr. Kritik Bhardwaj and Mr. Raj Vasani (BE) of Rubber Technology are placed in Balkrishna Industries (BKT Tires).**

STUDENTS' ACHIEVEMENTS

- **The Under-Graduate, final year student of Rubber Technology Mr. Ketan Jamdade is placed at Welspun Living.**
- **The UG final year student of Rubber Technology Mr. Rutvik Mehta is placed at Flextron Rubber Pvt Ltd.**
- **A patent has been granted to the patentee Mr. Maulik Chauhan, Mr. Dhruvkumar Patel, Mr. Shyam Chauhan, Mr. Denis Savaliya, Ms. Sukanya Rathod and Mr. Saumya Rathod under the guidance of Prof. Gnanu Bhatt from the Rubber Technology Department entitled "METHOD FOR SYNTHESIS OF NANO FIBER FROM RICE HUSK" on 4th December 2024.**
- **Mr. Sarthak Patil, the student of Rubber Technology Sem V, has attended the "Mastering Data Science: A Journey from Fresher to GenAI Expert" conducted by Innomatics Research Labs on 28th September 2024.**
- **Mr. Dhruvkumar Patel and Mr. Maulik Chauhan the M.E. final year students of Rubber Technology Department are visited the industry named "Vision Industries", on 7th October 2024 at Motibhoyan, Ahmedabad.**
- **The students of Rubber Technology department visited the Sabarmati Bullet Train Station on 14th October 2024.**
- **The students of Rubber Technology department visited an Iconic place i-Create on 11th October 2024 to celebrate Vikas Saptah from 7th to 15th October 2024.**
- **Miss. Dhruvi Vadadoriya, the student of Rubber Technology Sem III, has participated in "Basic Business Decisions using the fundamental knowledge of E-Commerce" on 16 th November 2024.**
- **Miss. Priya Umaretiya, the student of Rubber Technology Sem III, has participated in the eat right queston 3 rd December 2024.**

PROFESSIONAL DEVELOPMENT

- **Prof. Anal D. Bhatt participated in a one-day workshop on the "Circular Economy Action Plan for Gujarat State," organized by GPCB in collaboration with GCPC. The workshop was held on 22nd August 2024 at Narayani Heights - Hotel and Resort, GIDC Bhat, Gandhinagar.**
- **Prof. Anal D. Bhatt and Prof. Sunil Padhiyar attended a two-week industrial training at KLOCKNER DESMA Machinery Pvt. Ltd., focusing on "Injection Mold and Machinery Design." The training took place from 1st July to 15th July 2024 at KLOCKNER DESMA Machinery Pvt. Ltd.**
- **Prof. Bhakti Patel attended and participated as a mentor in an expert session conducted by Dr. Prashant Bhimani (Psychologist) at Aryabhatt Hall, L. D. College of Engineering on 6th September 2024.**
- **Prof. Bhakti Patel, Prof. Anal D. Bhatt, and Prof. Sunil Padhiyar attended a technical seminar organized by AIRIA, Western Region, Gujarat Chapter on 9th August 2024 at Fairfield by Marriott, Ahmedabad.**
- **Prof. R. Y. Modan attended and coordinated student participation in RE INVEST 2024, the 4th Global Renewable Energy Meet & Expo, held from 17th to 18th September 2024 at Mahatma Mandir, Gandhinagar.**
- **Prof. Gnanu Bhatt attended an expert session on "Energy Transmission Scenario" conducted by Shri Alok Sharma, Director, R&D, IOCL (an alumnus of L.D. College of Engineering) on 6th September 2024 at Aryabhatt Hall, L.D. College of Engineering.**
- **Prof. Gnanu Bhatt participated in a one-day webinar on "Design Parameters of Molded Rubber Products, Closure and Relative Dimensions, Static and Dynamic Load Deflection, Shrinkage, Blooming" held online via Microsoft Teams on 7th July 2024 from 3:00 PM to 5:00 PM.**
- **Prof. Gnanu Bhatt also participated in a one-day webinar on "Useful Properties of Thermoset Rubbers for Compounding and Technical Applications," held online via Microsoft Teams on 21st September 2024 from 7:00 PM to 9:15 PM.**
- **Prof. Bhakti Patel and Prof. Gnanu Bhatt attended a two-week industrial training at KLOCKNER DESMA Machinery Pvt. Ltd., focusing on "Injection Mold and Machinery Design," from 15th July to 30th July 2024.**
- **Prof. R. Y. Modan participated in a one-day webinar on "Materials for Energy and Environmental Applications," held online via Wiley on 21st September 2024.**

PROFESSIONAL DEVELOPMENT

- **Prof. R. Y. Modan also attended a one-day webinar on "Modeling and Simulation of Property-Structure-Manufacturing Relationships," held online via Wiley on 28th September 2024.**
- **Prof. Sunil Padhiyar participated in a National Level Online Faculty Development Program (FDP) on "Outcome-Based Education and Application of Generative AI in Teaching and Research," held from 17th to 24th October 2024. The program was organized by St. Mary's College, Thrissur, Kerala (Online).**
- **Prof. Gnanu G. Bhatt attended an industrial training at Macro Polymers Pvt. Ltd., focused on advanced polymer technologies. The training was conducted from 2nd to 14th December 2024 at Macro Polymers Pvt. Ltd., 165, Mahagujarat Industrial Estate, Moraiya, Ahmedabad.**
- **Prof. Gnanu G. Bhatt participated in a webinar on "Fundamentals of Additives and Compounding Ingredients of Rubber," held online on 7th October 2024.**
- **Prof. Aanal D. Bhatt and Prof. Bhakti Patel attended a seminar titled "Lakhpati DiDi Talk Show," held on 15th October 2024 at Chankya Hall, Electrical Department.**
- **Prof. Sunil Padhiyar attended a seminar organized by the International Center for Entrepreneurship and Technology (iCreate), held on 11th October 2024 at Mahatma Mandir, Gandhinagar.**
- **Prof. R. Y. Modan participated in a webinar on "Blockchain Technology," held online on 31st December 2024, organized by KCG.**
- **Dr. R. N. Desai, Prof. Aanal D. Bhatt, Prof. Bhakti Patel, Prof. Sunil Padhiyar, Prof. Gnanu G. Bhatt, and Prof. R.Y. Modan attended a hands-on workshop on "Differential Scanning Calorimetry," held on 24th October 2024, organized by the Rubber Technology and Chemical Engineering Department.**
- **Dr. R. N. Desai, Prof. Aanal D. Bhatt, Prof. Bhakti Patel, Prof. Sunil Padhiyar, Prof. Gnanu G. Bhatt, and Prof. R. Y. Modan participated in a one-day technical training workshop on "Tapped Density Meter and Cloud & Pour Point Apparatus," held on 26th November 2024 at the Rubber Technology Department.**

COMMUNITY ENGAGEMENT AND SPORTS

- **Hrishikesh Singh, a student of BE VI Rubber Technology, won a Gold Medal at the State Level Wrestling Championship and was selected for the National Level Championship on 5th September 2024.**





- **Dr. R. N. Desai and Prof. Bhakti Patel arranged an expert session on "Breast Cancer Awareness" in collaboration with Neuberg Diagnostics. The session was conducted for female faculty members and girl students of L.D. College of Engineering at Aryabhatt Hall, LDCE on 15th October 2024. The session was delivered by Dr. Exkavala Chandarana and Dr. Kunjal Patel.**
- **Dr. R. N. Desai and Prof. Anal D. Bhatt organized an expert session on "Intimate Hygiene" for female faculty members and girl students of L.D. College of Engineering. The session took place at the Annexe Building, LDCE on 22nd October 2024, with Mrs. Neela Patni delivering the session.**
- **Hrishikesh Singh, a student of BE VII Rubber Technology, won a Gold Medal at the State Level Woodball Championship held at SVIT, Vasad. He was also selected for the National Level Championship on 25th October 2024.**



MISCELLANEOUS









MAJOR RECRUITERS

























































FACULTIES



Prof. (Dr.) R. N. Desai
Head of the Department



Prof. A. D. Bhatt
Assistant Professor



Prof. B. D. Patel
Assistant Professor



Prof. S. J. Padhiyar
Assistant Professor



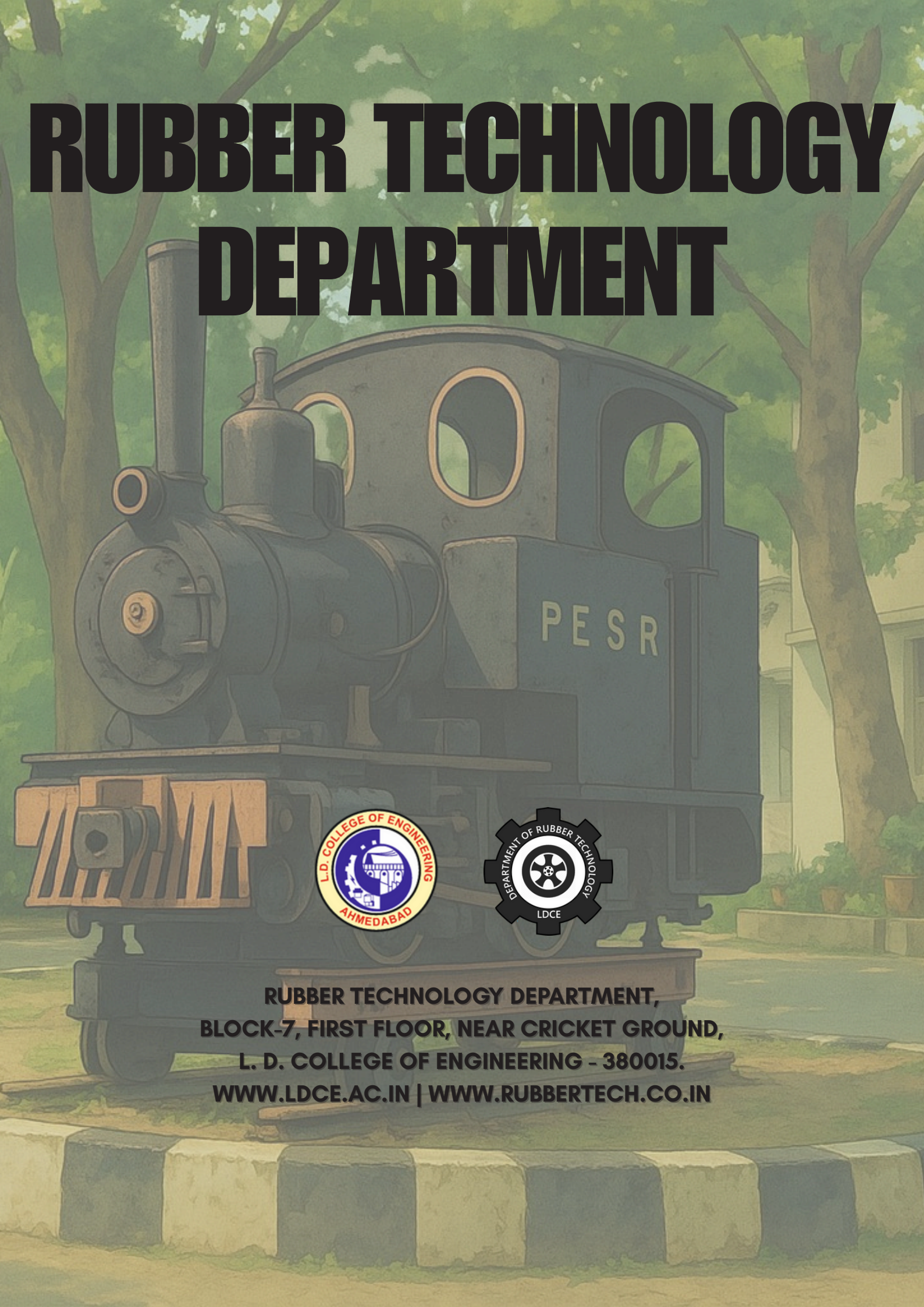
Prof. G. G. Bhatt
Assistant Professor



Prof. R. Y. Modan
Assistant Professor

**The newsletter has been thoughtfully designed by Er. Maulik Chauhan.
For further insights and details, feel free to visit bit.ly/MAULIK.**

RUBBER TECHNOLOGY DEPARTMENT



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