

IGNITE 2 INNOVATIONS.....

THE  
**AUTOMOBIL EXPRESS**  
**YEAR 2025-2026**

**VOLUME 2: ISSUE 1, 25-March-2026**

An Annual Newsletter of Department of Automobile Engineering

Parala Maharaja Engineering College, Berhampur





# DEPARTMENT OF AUTOMOBILE ENGINEERING

## ABOUT THE DEPARTMENT

Modern automotive industries need experts in vehicle design and manufacture. With this in mind, the Department of Automobile Engineering was established in 2014 to train the students in the area of automobile engineering. Since southern side is the automobile hub of India. The objective of this B.Tech program in Automobile Engineering is to give students a broad exposure to the design, development, and testing of automobiles. Furthermore, the program trains them to meet the technological challenges and diverse needs of the industry and society in various areas of Automobile Engineering and equips them to excel in a truly competitive industry. The department has a team of highly qualified, dedicated and experienced teachers. They specialize in IC Engines, Alternative, Fuels, Automotive Technology, Automotive Design, Production, Thermal & Electric Vehicles. Research activities are in progress in the areas of Alternative fuels, Engine systems, Vehicle dynamics and new trends in Engine design.



## Vision

To be a world class Automobile Engineering education provider with imparting appropriate, latest, sustainable technology thereby producing globally competent Automobile Engineering with commitment to meet the ever-changing needs of the automotive industry and society.



## Mission

- ✓ To provide quality education in vibrant learning environment for achieving professional competency.
- ✓ To tie up with industries for mutual benefit like training, internship and partial delivery of courses for the students.
- ✓ To create successful professionals who contribute their knowledge, skill and attitudes to design, re-design, research & development in the automotive industry.
- ✓ To offer advanced courses for becoming center for excellence in the field of automobile engineering.



## Principal's Message



Prof. (Dr.) Chitta Rranjan Mohanty  
Principal, PMEC Berhampur

Greetings from Parala Maharaja Engineering College, Berhampur. It's my pleasure to extend a warm welcome to all students, faculty, alumni, and well-wishers through this newsletter. At PMEC, we are dedicated to fostering academic excellence, innovation, and holistic development. Our institution provides a dynamic learning environment where students are encouraged to explore new ideas, engage in hands-on learning, and develop the skills necessary to excel in their careers. With a strong emphasis on technical education, research, and industry collaboration, we strive to shape professionals who can contribute meaningfully to society. The Department of Automobile Engineering has consistently demonstrated excellence in education, research, and industry engagement.

## HoD's Message

Greetings from the Department of Automobile Engineering at Parala Maharaja Engineering College (PMEC)! It is my pleasure to connect with you through this newsletter and share insights into our department's vision and progress. At PMEC, we are committed to shaping the future of automotive engineering through a dynamic curriculum, cutting-edge research, and hands-on learning. Our experienced faculty ensures that students gain the knowledge and skills required to excel in the ever-evolving automotive industry. We continuously integrate emerging technologies such as electric and autonomous vehicles, sustainable transportation, and advanced manufacturing into our curriculum. Our state-of-the-art laboratories provide students with practical exposure, bridging the gap between theory and real-world application. Beyond academics, we encourage active participation in technical competitions, conferences, and industry interactions through visits, expert talks, and workshops. The success of our alumni in leading automotive sectors is a testament to the quality education we impart.



Dr. Kanchan Kumari  
Head of the Department,  
Department of Automobile Engineering

## Our Faculties and Staffs



**Dr. Kanchan Kumari**  
Assistant Professor & HOD



**Dr. Saroj Kumar Padhi**  
Assistant Professor



**Mr. Abhishek Barua**  
Assistant Professor



**Mr. Sibasis Harihar Sahu**  
Assistant Professor



**Mr. Shibabrata Swain**  
Assistant Professor



**Ms. Mreenmayee Nayak**  
Assistant Professor



**Mrs. Debasmita Dash**  
Office Assistant



**Mr. Arabinda Behera**  
Lab Assistant

## TEACHER'S DAY CELEBRATION



The Department of Automobile Engineering Celebrated Teacher's Day with great warmth, gratitude, and enthusiasm, paying tribute to the esteemed faculty members whose dedication and guidance continue to shape the future of young engineers. Students expressed their heartfelt appreciation through thoughtful messages, cultural performances, and sincere gestures of respect. The celebration served as a meaningful reminder of the invaluable role teachers play in inspiring learning, nurturing talent, and guiding students toward success.



# VISHWAKARMA PUJA



The Department of Automobile Engineering celebrated Vishwakarma Puja with deep devotion and great enthusiasm, paying reverence to Lord Vishwakarma, the divine architect and celestial engineer, who symbolizes creativity, craftsmanship, and technical excellence. The occasion brought together students and faculty members in a spirit of श्रद्धा and unity, as they offered prayers and sought blessings for knowledge, innovation, skill, and success in the field of engineering. The celebration served as a meaningful reminder of the dignity of work, the importance of precision and dedication, and the enduring value of technology in building a progressive society. It also reflected the department's commitment to nurturing technical competence along with respect for the traditions that inspire invention and human advancement. May Lord Vishwakarma continue to bless all with wisdom, creativity, and excellence in every endeavour.



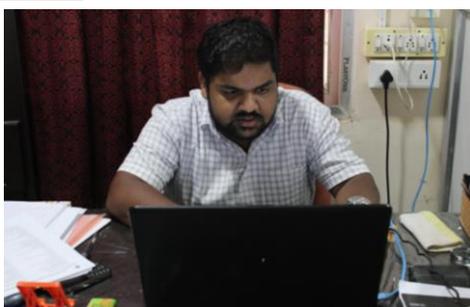
# ENGINEERS' DAY CELEBRATION



Engineers' Day was celebrated in our department with great enthusiasm and pride to honour the invaluable contributions of engineers to society and to commemorate the birth anniversary of Bharat Ratna Sir Mokshagundam Visvesvaraya. The celebration began with an introduction highlighting the significance of engineering in nation-building, technological advancement, and improving everyday life. The life, achievements, and vision of Sir M. Visvesvaraya were also remembered with great respect and admiration.



To mark the occasion, various student-centered activities such as technical quizzes, presentations, and group discussions were organized. These events provided a platform for students to showcase their knowledge, creativity, communication skills, and technical understanding. Faculty members addressed the students and emphasized the importance of innovation, dedication, ethical responsibility, and continuous learning in the engineering profession. Their speeches inspired students to think beyond the classroom and contribute meaningfully to society through their technical skills.



# ENGINEERS' DAY CELEBRATION



## OUR PARTICIPANTS AND WINNER IN ARENA-2025



We are proud to celebrate the achievement of Mr. Surendra Behara from the Department of Automobile Engineering, who secured 3<sup>rd</sup> position in the 1600 meter running event at Arena 2025. His accomplishment is a remarkable reflection of dedication, discipline, perseverance, and competitive spirit. Excelling in athletics while pursuing engineering studies is truly commendable, and his success stands as an inspiration to fellow students, showing that academic commitment and sporting excellence can go hand in hand. The department congratulates him wholeheartedly on this well-deserved achievement and wishes him even greater success in the future, both in sports and in all his endeavours.

## OUR PARTICIPANTS AND WINNER IN EXORDIUM-2025

We are delighted to celebrate the outstanding achievements of Ms. Shruti Maharana from the 1<sup>st</sup> year of the Department of Automobile Engineering at EXORDIUM - 2025, whose exceptional performance has made the department immensely proud. She secured 1<sup>st</sup> position in Marathon, Carrom, Shot Put, and Table Tennis, along with 2<sup>nd</sup> position in Chess, Badminton, Discus Throw, and Javelin. Such an impressive record across both indoor and outdoor events reflects her extraordinary determination, versatility, talent, and spirit of excellence.

Her achievements inspire all students, showing that academic success and excellence in sports can go hand in hand. We warmly congratulate her on these accomplishments and wish her continued success in the future.



## OUR PARTICIPANTS AND WINNER IN EXORDIUM-2024



We are proud of Ms. Urmee Krishna Pani from the Department of Automobile Engineering for her outstanding achievement at EXORDIUM - 2024. Showcasing her talent in Classical Dance, she secured 1st position and brought great pride to the department.

Her success is an inspiration to all, proving that engineering and creativity can go hand in hand. We congratulate her on this remarkable accomplishment and wish her even greater success in the future.

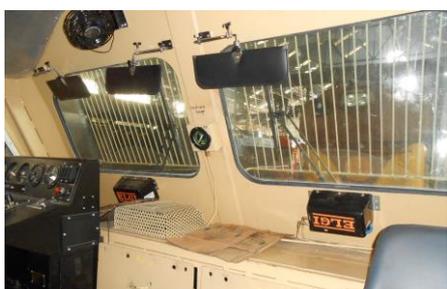
# SUMMER INTERNSHIP



Our 3rd-year students of the 2023–2027 batch, Mr. Suraj Kumar Sahu, Mr. Bimal Prasad Dash, Mr. Asimananda Behera, Mr. Haimabata Saranagata Behera, Mr. Chandan Behera, Mr. Surendra Behera, Mr. Asmit Kumar Behera, and Mr. Debashish Nayak, successfully attended industrial training at Diesel Loco Shed, Bondamunda, under South Eastern Railway, from 26/06/2025 to 09/07/2025. They completed their training along with project work successfully.

During the training period, the students showed keen interest in learning and acquiring technical knowledge. Their conduct and discipline throughout the program were highly commendable.

The internship at Diesel Loco Shed proved to be a valuable learning experience, helping bridge the gap between theoretical knowledge and practical application. It provided hands-on exposure to locomotive maintenance and helped the students develop essential engineering skills, professional ethics, and confidence. Overall, the training has better prepared them for future careers in the railway and mechanical engineering industries.



# KARAYANA - 2025



We successfully organized our technical fest, KARAYANA 2025, with great enthusiasm and active participation from students. The event featured a variety of exciting games and competitions, including Mini RC Race, Treasure Hunt, Roll the Cane, Auto Quiz, Auto Sketch, Solve the Puzzle, and many more. These activities were designed to encourage technical knowledge, creativity, teamwork, and problem-solving skills among the participants.



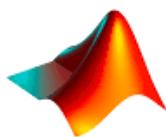
The fest witnessed enthusiastic participation from a large number of students, making it a vibrant and memorable event. KARAYANA 2025 provided an excellent platform for students to showcase their talents, explore their interests, and engage in healthy competition in a fun and innovative environment.

 **Shadows**  
PHOTOGRAPHY CLUB OF PMEC



# LABORATORY FACILITIES

Design is at the heart of automotive engineering, and our CAD Laboratory nurtures creativity, precision, and innovation. Equipped with industry-standard software such as AutoCAD, CATIA, SolidWorks, ANSYS, and MATLAB, the lab enables students to develop strong skills in vehicle design, simulation, and engineering analysis. It is a space where ideas are transformed into digital models and future automotive concepts begin to take shape. The laboratory plays a vital role in developing modern engineering design skills by bridging theoretical knowledge with practical application. Through hands-on experience in modeling, simulation, and performance analysis, students become industry-ready and proficient in advanced digital design tools.



MATLAB®

ANSYS

SOLIDWORKS

# LABORATORY FACILITIES



Innovation thrives where technology meets precision. Our High-Tech Equipment Laboratory is equipped with advanced instruments and modern automotive tools that provide students with valuable hands-on experience in automotive systems, diagnostics, testing, and performance analysis. The laboratory creates a practical learning environment where students can understand the working principles of various vehicle components, analyze system performance, and develop technical problem-solving skills. By offering real-world exposure to modern automotive technologies, the lab helps bridge the gap between classroom learning and industrial practice. It empowers students to strengthen their understanding of cutting-edge automotive advancements and prepares them to meet the challenges of the rapidly evolving automobile industry with confidence and competence.

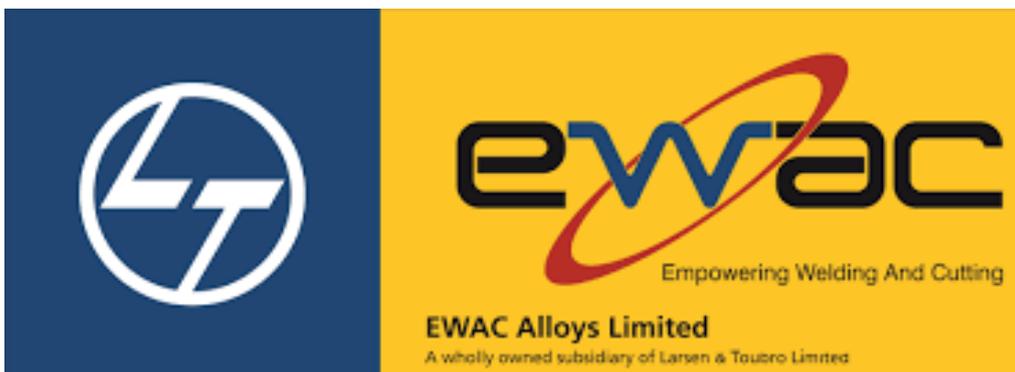


# LABORATORY FACILITIES



## STUDENT PLACEMENT

At the Department of Automobile Engineering, PMEC, we take immense pride in nurturing industry-ready professionals equipped with strong technical knowledge, practical skills, and a spirit of innovation. Through a balanced emphasis on academic excellence, hands-on training, and real-world exposure, our students have consistently secured placements in leading automotive and manufacturing organizations. We remain committed to strengthening the connection between academia and industry, empowering our graduates to meet professional challenges with confidence and to contribute meaningfully to technological progress and industrial growth.



# OUR AUTOMOBILE FAMILY



## ALUMNI MESSAGE



**Mr. Deepak Kumar Mahapatra**  
(Batch: 2021-25)

It is a matter of immense pride and gratitude for me to be an alumnus of Parala Maharaja Engineering College. The institution did not just provide me with a degree; it shaped my outlook, strengthened my confidence, and laid the foundation for my professional journey. My career began through campus placement at Antony Lara Enviro Solutions Pvt. Ltd., Mumbai, where I worked as a Graduate Engineer Trainee and gained valuable exposure in managing and maintaining a large fleet of heavy and off-road vehicles. While that experience gave me strong industrial insight, it also helped me discover my true passion for the light-weight vehicle segment and the creative possibilities within the automobile domain. Guided by that passion, I returned to Odisha and joined Laxmi Toyota as a trainee in the service department, where I deepened my practical knowledge and technical expertise. Driven by innovation and love for automobiles, I also founded DeepXRev, a venture dedicated to transforming discarded automobile parts into premium handmade décor and unique creations for automobile enthusiasts. My journey has been one of learning, exploration, and reinvention, and P MEC has been the place where that journey truly began.

I feel deeply honoured to be a part of the proud legacy of Parala Maharaja Engineering College. My years at the institution were not only a period of academic learning but also a phase of personal growth, discipline, and preparation for life beyond the classroom. The strong technical foundation, practical exposure, and values instilled in me during my time at P MEC continue to guide me in my professional career. Today, I am working with Antony Waste Handling Cell Limited in fleet maintenance, where I am involved in managing heavy vehicles, machinery, and equipment in demanding real-world conditions. Every challenge I face reminds me of the lessons I learned at college, how to think critically, solve problems systematically, and remain committed to excellence. I remain sincerely grateful to my teachers for their encouragement, mentorship, and unwavering support, which have played a significant role in shaping my path. I am confident that P MEC will continue to inspire, empower, and produce engineers who will contribute meaningfully to society and industry.



**Mr. Swayam Susovan Sahoo**  
(Batch 2021-25)

# RESEARCH AND PUBLICATIONS

**Name: Dr. Kanchan Kumari**

**Designation: Assistant Professor and HoD**

## **List of Journals**

Samantra C, Pradhan S, Kumari K, Rana SK, Barua A. Fabrication, Mechanical Characterization, and Wear Optimization of Al6061-CSAp Metal Matrix Composites Using Hybrid Taguchi-ARAS-Sunflower Algorithm Approach. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2026.

## **List of Book Chapter**

1. Kumari K, Barua A, Pradhan S, Priyadarshini M, Samantra C, Sahu SH, Pradhan T, Rout T. Finned-tube heat exchangers for automotive application. In Smart Heat Transfer and Thermal Management 2026 Jan 1 (pp. 363-390). Woodhead Publishing, Elsevier.
2. Kumari K, Barua A, Pradhan S, Priyadarshini M. Introduction to Application of Alcoholic Fuels in Combustion Engine. In Alcohol Fuels in Advanced Combustion Strategy Mode Diesel Engines 2026 (pp. 1-20). CRC Press.

## **List of Patent/ Design**

5. Application number: 452102-001, "Roof for Electric Cart", Inventors: Sibasis Harihar Sahu, Isham Panigrahi, Debjyoti Sahu, Kanchan Kumari, Abhishek Barua, Shibashish Rath, Swayam Susovan Sahoo, Deepak Kumar Mahapatra, Publication date: 07-07-2025, Patent office: India, Type: Design.
6. Application number: 452101-001, "Rear Seat for Electric Cart", Inventors: Sibasis Harihar Sahu, Isham Panigrahi, Debjyoti Sahu, Kanchan Kumari, Abhishek Barua, Shibashish Rath, Swayam Susovan Sahoo, Deepak Kumar Mahapatra, Publication date: 28-07-2025, Patent office: India, Type: Design.
7. Application number: 459450-001, "Integrated Contour-Tail Rear Spoiler for Vehicles", Inventors: Shibashish Rath, Swayam Susovan Sahoo, Kanchan Kumari, Sibasis Harihar Sahu, Abhishek Barua, Publication date: 04-09-2025, Patent office: India, Type: Design.
8. Application number: 460233-001, "Lightweight Engine Piston", Inventors: Jayanarayan Mahakud, Durjyodhan Sethi, Ranjan Kumar Behera, Shaik Farook, Anukampa Chau Pattnaik, Kanchan Kumari, Baisalini Sethi, B Durga Roa, Ayusman Nayak, Anish Pandey, Publication date: 08-09-2025, Patent office: India, Type: Design.
9. Application number: 478697-001, "Automated Pallet Transformer Trolley", Inventors: Durjyodhan Sethi, Jayanaryan Mahakud, Ranjan Kumar Behera, Kanchan Kumari, Shaik Farook, Rudra Prasad Mahapatra, P. Rohit Kumar, Biren Kumar Behera, Krishna Chandra Patra, Agniswami Behera, Anish Pandey, Publication date: 24-12-2025, Patent office: India, Type: Design.
10. Application number: 444154-001, "Piston for IC Engine", Inventors: Abhishek Barua, Swayam Susovan Sahoo, Shibashish Rath, Sibasis Harihar Sahu, Kanchan Kumari, Sangam Kumar Singh, Trilochan Rout, Swastik Pradhan, Publication date: 29-01-2026, Patent office: India, Type: Design.

# RESEARCH AND PUBLICATIONS

**Name:** *Abhishek Barua*

**Designation:** *Assistant Professor*

## **List of Journals**

Samantra C, Pradhan S, Kumari K, Rana SK, Barua A. Fabrication, Mechanical Characterization, and Wear Optimization of Al6061-CSAp Metal Matrix Composites Using Hybrid Taguchi-ARAS-Sunflower Algorithm Approach. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2026.

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1. Application number: 452102-001, "Roof for Electric Cart", Inventors: Sibasis Harihar Sahu, Isham Panigrahi, Debjyoti Sahu, Kanchan Kumari, Abhishek Barua, Shibashish Rath, Swayam Susovan Sahoo, Deepak Kumar Mahapatra, Publication date: 07-07-2025, Patent office: India, Type: Design.
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4. Application number: 444154-001, "Piston for IC Engine", Inventors: Abhishek Barua, Swayam Susovan Sahoo, Shibashish Rath, Sibasis Harihar Sahu, Kanchan Kumari, Sangam Kumar Singh, Trilochan Rout, Swastik Pradhan, Publication date: 29-01-2026, Patent office: India, Type: Design.

# RESEARCH AND PUBLICATIONS

**Name:** *Sibasis Harihar Sahu*

**Designation:** *Assistant Professor*

## **List of Book Chapter**

Kumari K, Barua A, Pradhan S, Priyadarshini M, Samantra C, Sahu SH, Pradhan T, Rout T. Finned-tube heat exchangers for automotive application. In Smart Heat Transfer and Thermal Management 2026 Jan 1 (pp. 363-390). Woodhead Publishing, Elsevier.

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Thanks to all faculties and TAE Team who contributed for this wonderful outcome

**Our Editor Team**



**Mr. Abhishek Barua**  
**Faculty Coordinator**

**Student Coordinators**



**Mr. Ekant Patnaik**



**Mr. Pratyus Kumar Jena**



**Mr. Suraj Kumar Sahu**



**Ms. Swagatika Padhy**