

MECH TRENDS

MAGAZINE ISSUE AUGUST 2025

CHAIRPERSON MESSAGE



A lady with spirit, determination and zeal, Mrs. Alka Das Gupta has been the driving force behind her husband Dr. Akhilesh Das Gupta, brought up on Gandhian ideals and philanthropic traditions, she is the daughter of Late Justice Shri. D. P. Gupta, who held high positions in the State of Rajasthan, as Governor and Chief Justice.

Mrs. Gupta is a management expert and a legal luminary who has a long involvement with issues of social justice and women empowerment in our country. She is a legal consultant to several reputed organizations and is actively devoted to Social Work. She is also a Life Member of the "Rajasthan High Court Bar Association".

She is also the Director of Viraj Group of Automobiles. Mrs. Gupta also shares her thoughts with public through articles in eminent newspapers.

As a Co-founder of Babu Banarasi Das Group of Educational Institutions, Mrs. Gupta has made a valiant attempt to nurture the young generation of highly motivated students with an inbuilt commitment to do something constructive for the country.

Mrs. Alka Das Gupta
CHAIRPERSON, BBD GROUP

PRESIDENT MESSAGE



It's rightly said that We learn more by looking for the answer to a question and not finding it than we do from learning the answer itself.

Today the domains of education learning are changing rapidly and sometimes we just need something really smart to say to inspire and motivate ourselves and those around us and we, at ADGIPS, believe that students are our future. Teach them well and let them lead the way.

Even more importantly, a good education system skillfully prepares the young generation for life.

"I always believe that education is all about being learning about something which creates passion and enthusiasm helping to push us to achieve our dreams and making this world sustainable to live in true sense.

"You can teach a student a lesson for a day; but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives."

Shri. Viraj Sagar Das
HONOURABLE PRESIDENT, BBD
GROUP

DIRECTOR MESSAGE



“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.”

Greetings and warm welcome from ADGIPS Family, As the Director of Dr. Akhilesh Das Gupta Institute of Professional Studies, I would like to initiate the idea of empowering our students with education as a window to global ventures.

The Institute has been gradually crossing the Laurels of Excellence not only in academics but also in the co-curricular activities. Year round the Campus is vibrant with many activities like Annual Fest, Seminars, Workshops, Training Programmes, Blood Donation Camp, joy of giving, Swachh Bharat Abhiyaan, etc.

By conducting these activities, we provide a wholesome experience and exposure to our students with firm assurance of their contribution in nation building and World progress. ADGIPS is a thriving Institute that encourages a four-way partnership between Students, Parents, College and Industry. The strength of this bond is reflected in the success of our students.

With a team of well qualified, experienced and motivated faculty, I am confident that our engineers will not only be humane but also will be capable of facing many challenges of their professional life.

So, go ahead, broaden your horizons and get set for an unbeatable learning experience at ADGIPS.

Prof. (Dr.) Niranjan Bhattacharya
DIRECTOR

DR. AKHILESH DAS GUPTA INSTITUTE
OF PROFESSIONAL STUDIES

MECHANICAL ENGINEERING DEPARTMENT



Mechanical Engineering came into existence in the year 2015 and offers B.Tech (ME), which is a four year program. Department of ME has facilities comprising of state of the art laboratories having modern facilities to cope with the advanced industry requirements. Department has well stocked library and a computer lab having latest software access as AutoCAD, ANSYS, CATIA and SOLIDWORKS. We are continually striving to improve the quality of our programs by finding new ways of structuring our curriculum and exploring new delivery methods. We provide our students opportunities to engage in experiments, design work, project work, industrial training, seminars, and team work to enhance the learning process that is so vital for a holistic engineering education. They develop skills of inquiring and exploring new ideas on their own. In essence, they are well prepared for the life- long learning that is vital for an enriching career in engineering. Our students develop an ability to think, are able to innovate, and acquire a strong foundation in technical knowledge. If you are a prospective student; a faculty or staff member; alumni; a recruiter from industry or government; or a potential donor; you'll find this department a great place.

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**DR. AKHILESH DAS GUPTA INSTITUTE OF
PROFESSIONAL STUDIES**

VISION

“ To produce globally competent and socially responsible technocrats and entrepreneurs who can develop innovative solutions to meet the challenges of 21 st century”

**DR. AKHILESH DAS GUPTA INSTITUTE OF
PROFESSIONAL STUDIES**

MISSION

M 1 . To Provide Value- Based Education through Multi Grade Teaching Methodologies and Modern Education Facilities.

M 2 . To Sustain an Active Partnership Program with Industry and Other Academic Institutes with an Aim to Promote Knowledge and Resource Sharing.

M 3 . To Conduct Value- Added Training Programme to Enhance Employability.

M 4. To Provide a Conducive Environment for Development of Ethical and Socially Responsible Technocrats, Managers and Entrepreneurs.

A close-up, high-contrast photograph of mechanical components, including several interlocking gears and a large bolt. The image is overlaid with a white circular shape on the left side, which contains the text.

VISION

Department of Mechanical Engineering

“To produce competent mechanical engineers having distinct employability skills, involving innovative ideas to fulfill societal needs.”



MISSION

Department of Mechanical Engineering

M 1 . To provide resourceful education through training and skill upgradation.

M 2 . To inspire the young dynamic minds towards innovation and research to meet the societal needs and responsibilities.

M 3 . To strengthen the industry- academia interface for better employability.



Program Educational Objectives (PEOs) Department of Mechanical Engineering

PEO 1 . Graduates shall excel in their career through participation in multidisciplinary fields.

PEO 2 . Graduates shall develop cost effective innovative technologies and methodologies to solve engineering problems and contribute to sustainable development.

PEO 3 . Graduates shall have a successful career in academia, industries or as an entrepreneur to serve societal needs.

Alumni Talk

Dated: 29 AUG. 2024

Department: Mechanical Engineering

Venue: Seminar Hall Room-2310, ADGIPS

Objectives: The primary objectives of the alumni talk were:

1. To motivate students: By highlighting the innovative IT and marketing solutions offered by Rash Technologies, the talk aimed to inspire students.
2. To share valuable business insights: Rash Technologies provided practical advice on crafting blueprints for Business Intelligence and ERP systems.
3. To connect industry experts with students: The talk facilitated a connection between students and industry experts, helping businesses gain insights into modern technological and marketing trends.

Key Activities: The event included the following activities:

Welcome and Introduction:

Alumni Talk: The speaker delivered an insightful presentation, covering the following key areas:

1. Crafting Blueprints for Business Intelligence and ERP Systems
2. Leading Audio-Visual Marketing and Branding Initiatives
3. Innovating Websites and Applications
4. Overseeing WhatsApp Campaigns and Consultations
5. Enhancing E-commerce Solutions and Customer Interactions
6. Providing Vendor Management Services to Ensure Adherence to Established Standards

Beneficiaries: 1st, 2nd and 3rd year students.



CSIR- NPL VISIT

Dated: 1ST Oct. 2024

Department: Mechanical Engineering

Venue: CSIR Complex, New Delhi

Objectives:

The primary objective of this visit to CSIR-NPL is to provide Mechanical Engineering students with practical exposure to the national standards of measurement and metrology, which are fundamental to precision engineering. Students will observe the realization, maintenance, and dissemination of SI units, specifically focusing on force, pressure, vacuum, and dimensional metrology.

This visit aims to bridge the gap between theoretical instrumentation concepts and real-world application. By witnessing advanced calibration protocols and materials characterization techniques, students will gain a deeper appreciation for quality assurance, standardization, and the critical role of high-precision measurement in industrial and research applications.

Beneficiaries: 2nd and 3rd year students.



BMW Engine Exploration

Dated: 14TH Oct 2024

Department: Mechanical Engineering

Venue: Automobile Lab, ADGIPS

Objectives: During TECHNOUTSAV 2024, the Mechanical Engineering department hosted a successful hands-on BMW engine dissection, allowing students to explore iconic German automotive technology. Participants analyzed the engine's architecture, focusing on advanced features like turbocharging, direct fuel injection, and variable valve timing under peer guidance. The interactive session provided practical insights into reverse engineering and design principles, fostering curiosity and innovation among future engineers.

Outcome: Engine learning workshops bridge the gap between theory and practice, equipping participants with essential hands-on skills for mechanical and automotive careers. Attendees deepen their technical knowledge of IC engines, advanced technologies like turbochargers, and vital systems such as fuels, cooling, and electronics.

The experience also sharpens problem-solving abilities by teaching participants to diagnose issues, analyze engine noise, and conduct diagnostic tests. Ultimately, these workshops foster the critical thinking and troubleshooting expertise required to excel in the engineering field.

Beneficiaries: 1st, 2nd and 3rd year students.



Casio Event

Dated: 26 October 2024

Department: Mechanical Engineering

Venue: Seminar Hall Room-2301.

Objectives: The primary objectives of learning how to use a scientific calculator are to increase efficiency, reduce errors in complex calculations, enhance mathematical exploration and understanding, and prepare students and professionals for advanced coursework and careers.

Boost computational speed: A scientific calculator allows users to perform complex and tedious calculations involving trigonometry, logarithms, and exponents quickly and accurately. This saves time during exams and in professional settings.

Improve accuracy: By handling complicated calculations with precision, a scientific calculator minimizes the risk of human error that can occur during manual or mental computation.

Develop problem-solving skills: When basic calculations are automated.

Beneficiaries: 2nd and 3rd year students.



INDIA ENERGY WEEK

Dated: 14TH FEBRUARY 2025

Department: Mechanical Engineering

Venue: Yashobhumi, Dwarka

Objectives:

The primary objectives of the educational visit were:

1. To provide exposure to global energy innovations, technologies, and industrial practices.
2. To help students understand the latest advancements in renewable and sustainable energy systems.
3. To connect students with industry leaders, experts, and organizations working in the field of energy and mechanical engineering.
4. To inspire students to explore career opportunities, research areas, and innovations in the energy sector.

Activities Undertaken:

The visit included the following activities:

Exhibition Visit: Students explored stalls and exhibits showcasing cutting-edge technologies in oil, gas, renewable energy, green hydrogen, and energy efficiency.

Technical Sessions: Participants attended talks and panel discussions by leading experts on sustainability, energy transition, and innovations in mechanical systems.

Industry Interaction: Students interacted with engineers, researchers, and company representatives to gain practical insights into industrial processes and energy solutions.

Live Demonstrations: Exposure to working models, prototypes, and demonstrations of next-generation energy technologies relevant to mechanical engineering.



Education Tour (IIT ROORKEE)

Dated: 21th April 2025

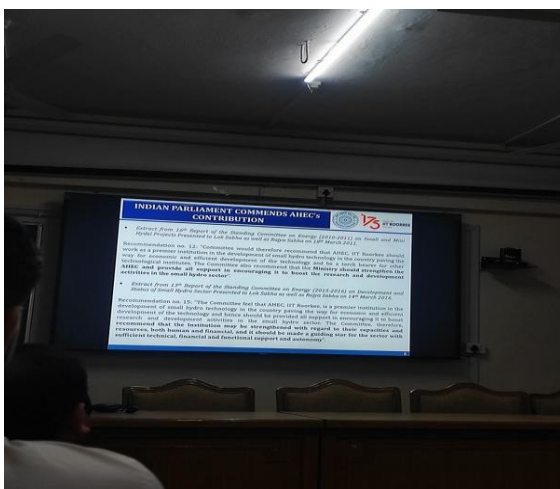
Department: Mechanical Department

Venue: IIT ROORKEE, Hydrogen Deptt

Objectives: The objectives of an industrial visit are to bridge the gap between theoretical knowledge and practical application by exposing students to real-world work environments. These educational tours provide hands-on experience, offer insights into corporate operations, and prepare students for their future careers.

Key Activities: The visit included the following activities:

1. **Exhibition Visit:** Students explored stalls and exhibits showcasing cutting-edge technologies in oil, gas, renewable energy, green hydrogen, and energy efficiency.
2. **Technical Sessions:** Participants attended talks and panel discussions by leading experts on sustainability, energy transition, and innovations in mechanical systems.
3. **Industry Interaction:** Students interacted with engineers, researchers, and company representatives to gain practical insights into industrial processes and energy solutions.
4. **Live Demonstrations:** Exposure to working models, prototypes, and demonstrations of next-generation energy technologies relevant to mechanical engineering.



AWARDS AND HONOURS



**“FIGHTER PILOTS HAVE ICE IN
THEIR VEINS. THEY DON'T HAVE
EMOTIONS. THEY THINK
ANTICIPATE. THEY KNOW THAT
FEAR AND OTHER CONCERNS
CLOUD YOUR
MIND FROM WHAT'S GOING ON
AND WHAT YOU SHOULD BE
INVOLVED IN.”**

BUZZ ALDRIN