CIRCULAR

ARKA JAIN University Jharkhand | NAAC GRADE A ACCREDITED UNIVERSITY

Circular

Ref. No. AJU/AD/ENGG/ 021/2025-26 **Date: 28/07/25**

This is to inform all the faculty and students that, Department of Mechanical Engineering, School of Engineering and IT, ARKA Jain University is going to organize an expert lecture in association with D&S Club on "***Innovation and Invention***". on Thermal Engineering Day on 29th July, 2025 at 01:30 pm. The resource person is Dr. Souvik Singh Rathore (Assistant Professor, Department of Mechanical Engineering, Arka Jain University).

Convenor:
Dr. Ashwini Kumar

Event Coordinator:
Prof. Nivedan Mahato

Dr. Ashwini Kumar
Assistant Dean
School of Engineering & IT
ARKA Jain University, Jharkhand.

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BHARATIYA BHASA UTSAV: FILM SCREENING IN DIFFERENT LANGUAGE

Date of Event	**29.07.2025**
Name of the Event	**Thermal Engineers Day**
Type of the Event	**Session Talk**
Conducted by	**School of engineering and IT**
No. Of Participants	**50**

OBJECTIVE:

The objective of Thermal Engineering Day at ARKA Jain University was to engage students and faculty in exploring the latest developments in thermal engineering. The event aimed to deepen understanding through expert talks, hands-on demonstrations, and discussions on sustainable technologies. It provided career guidance, highlighting job opportunities and industry expectations for thermal engineers. The program also focused on bridging the gap between academic learning and real-world applications by introducing modern design tools and thermal equipment. Overall, the event sought to inspire innovation, promote research, and prepare students to become skilled, industry-ready professionals in the evolving field of thermal engineering.

DETAILS:

The Department of Mechanical Engineering at ARKA Jain University, in collaboration with the Design Simulation Club, successfully organized Thermal Engineering Day at the School of Engineering & IT. This academic event aimed to engage students and faculty members in comprehensive discussions, technical sessions, and practical exposure relating to the dynamic and evolving field of thermal engineering.

The event began with an inaugural ceremony featuring a warm welcome address by faculty members and enthusiastic participation from students and invited guests. The program was designed to bridge the gap between theoretical knowledge and practical applications in thermal engineering, while encouraging innovation, career awareness, and industry readiness.

One of the major highlights was an expert session by Dr. Souvik Singh Rathore on "Invention and Innovation in Thermal Engineering." Dr. Rathore emphasized the transformative impact of scientific advancements in modernizing traditional thermal systems into more sustainable, efficient, and intelligent technologies. His session explored contemporary trends such as advanced heat transfer mechanisms, the development of smart thermal materials, and the integration of Internet of Things (IoT) technologies with thermal systems. Dr. Rathore illustrated how industries are leveraging these innovations to boost thermal efficiency, reduce emissions, and improve performance across various sectors, including power generation, HVAC, renewable

energy, and industrial processes. The session was enriched with case studies and real-world examples, which helped students grasp the significance of ongoing research and innovation in thermal engineering.

Following this, Prof. Nivedan Mahato conducted a vital session on "Career and Job Opportunities in Thermal Engineering." He outlined the diverse career avenues available within the thermal domain, spanning industries such as oil and gas, power plants, automotive, aerospace, air conditioning and refrigeration, and renewable energy. Prof. Mahato highlighted the increasing demand for skilled thermal engineers who are adept both in design and practical implementation. He stressed the importance of higher education, competitive exams like GATE, relevant skill certifications, and participation in industrial training and internships to enhance career prospects. Additionally, he shared insights into industry expectations, typical job roles, and tips for interview and placement preparation, thus providing students with valuable guidance on planning their professional journeys.

Another key session was led by Dr. Ashish Ranjan, who spoke on the "Uses and Benefits of Solar Energy." He detailed the significant role solar thermal systems are playing in the renewable energy sector and the global energy transition. Dr. Ranjan explained the working principles of solar heating systems, concentrating solar power (CSP), and hybrid solar technologies that combine photovoltaic and thermal methods to maximize efficiency. He underscored the environmental, economic, and long-term advantages of solar energy, emphasizing its applicability in both urban and rural contexts. Dr. Ranjan encouraged students to adopt a sustainability mindset and engage in projects promoting clean energy solutions.

The event also included a practical demonstration and lecture on the "Use of CAD/CAM in Thermal Engineering." This session focused on how modern design and simulation tools are crucial for the development, analysis, and optimization of thermal systems. Students were introduced to industry-standard software such as AutoCAD, SolidWorks, ANSYS, and CREO. They learned how these computer-aided design and manufacturing tools help streamline thermal component development, reduce prototyping time, and improve precision and innovation. This session was particularly beneficial for students interested in design, simulation, and industrial project work, as it bridged theoretical concepts with industry applications.

Further practical learning was provided through a session on "Awareness of Thermal Equipment Uses," where faculty members and technical staff demonstrated various thermal engineering devices and instruments, including heat exchangers, boilers, compressors, turbines, thermal sensors, and temperature measurement devices. Students observed the working principles, applications, safety protocols, and operational characteristics of each piece of equipment. This hands-on exposure significantly enhanced their understanding of real-world thermal systems. The demonstration was supplemented by diagrams, data analysis, and group discussions to foster critical thinking and active participation.

Throughout the day, the event was marked by active student engagement, a spirit of inquiry, and collaborative learning. Interactive Q&A sessions followed each presentation, allowing students to clarify doubts, share ideas, and deepen their understanding. The Design Simulation Club played a pivotal role in organizing and coordinating the event, managing presentations, arranging technical demonstrations, and supporting student volunteers. Their contributions ensured the smooth conduct of the program and enriched the overall experience.

Faculty coordinators ensured that all sessions aligned with the academic goals of the department, providing meaningful insights for students across all academic years. The event highlighted the importance of such knowledge-sharing initiatives in shaping well-rounded engineers who are both academically proficient and industry-ready. Students were motivated to pursue mini-projects, research papers, and participate in national-level technical competitions based on thermal engineering themes, fostering a culture of innovation and continuous learning.

The event concluded with a vote of thanks, appreciating the contributions of the speakers, organizing team, student coordinators, and all participants. Feedback collected from attendees was overwhelmingly positive, reflecting a strong desire for more such subject-focused events in the future. The Department of Mechanical Engineering is committed to continuing these initiatives regularly to foster a culture of continuous learning, innovation, and professional growth among future engineers.

TAKEAWAY (OUTCOMES):

Here are the key outcomes of the Thermal Engineering Day in short:

Enhanced student understanding of modern thermal engineering concepts and innovations.

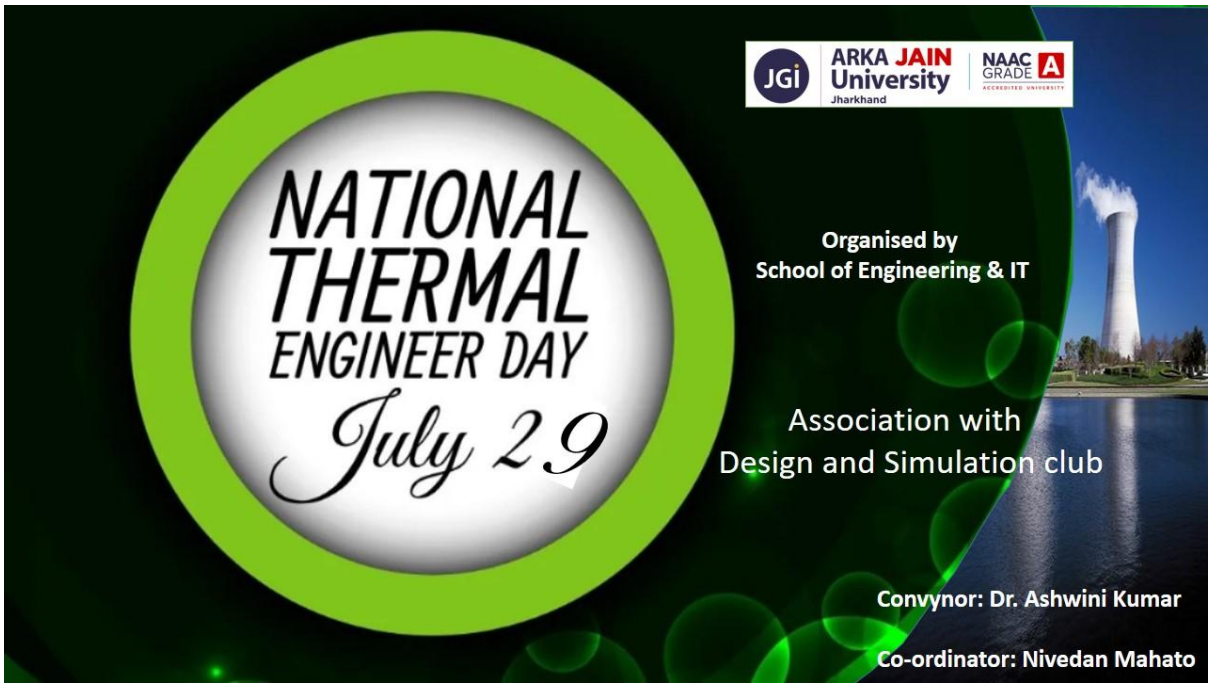
Increased awareness of career opportunities and industry expectations in the thermal field.

Practical exposure to thermal equipment and CAD/CAM tools used in design and simulation.

Encouragement for students to engage in research, projects, and competitions related to thermal engineering.

Strengthened link between academic learning and real-world industry practices.Fostered a culture of collaborative learning, inquiry, and innovation among students and faculty.

POSTER OF THE EVENT



PHOTOS OF THE EVENT

Fig.1- Session Introduction.

Fig. 2- Interacting with students

Fig. 3- Active participants.

NO. OF PARTIPANTS.

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Event Name: Thermal Engineering DAY

Event Date : 29/07/2025

Attendance Sheet :

Sl. No.	Name of Students	Enrollment No.	Signature	Email ID
01	Shekh Shahid	AJU/240067	Shahid	sajid.onsevio7[illegible] @gmail.com
02	kamal kishor Mandal	AJU/240524	Kamal	mandalkamal925 @gmail.com
03.	Roshan kumar	AJU/240551	Roshan kumar	kumarroshan2462[illegible] gmail.com
04.	Raj kumar Das	AJU/240386	Raj kr Das	rajkd00572 @gmail.c
05	Nityanand Kr. mandal	AJU/240132	Nityanand Kr. mandal	nityanand 898 @g -a.com
06	Rehan Imam Khan	AJU/240746	Rehan	khanrehan 1066[illegible] @gmail -com
07	Abhishek kumar singh	AJU/240122	Abhishek singh	abhishekkr 91289[illegible] gmail.com
08	Manish Chandra Sanad	AJU/240314	Manish Sanad	manishsanad @gmail.co
09	Gautam kumar	AJU/240636	Gautam kumar	rajK3358121 @gmail.c
10	Kitik KUMAR SAH	AJU/240444	Kitik	satikkumar sah1112@gm .com
11	Diwakar Kumar	AJU/240531	Diwakar Kumar	Diwakar8k8 09876@ gmail.com
12.	Prince Prasad	AJU/240256	Prince (Prince2606@gmail.com)	9875815 29@gmail Com
13.	ADITYA SHARMA	AJU/240676	Aditya Sharma	
14.	HARSH ANAND	AJU/232110	Harsh Anand	
15.	PUNAM CHOUDHARY	AJU/231048	Punam choudhary	santosh pu ans21069121 @gmail.com
16.	RISHI OM KUMAR	AJU/232195	Rishi om kumar.	om9473366 gmail.co
17.	PREM PATRA	AJU/231144	Prem Patra	
18	sandeep Murmu	AJU/232186	sandeep	sandeep murmu03 @gmail.com
19	Ehteshamul Haque	AJU/232318	Haque	ehtesham ith206 @ gmail.com

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Event Name:

Event Date :

Attendance Sheet :

Sl. No.	Name of Students	Enrollment No.	Signature	Email ID
20	Sandeep Mahato	AJU/231200	Sandeep	Sandeepmahat 9334@gmail.co
21	Shailesh Mahato	AJU/231201	Shailesh Mahato	Shailesh mahat 756@gmail. com
22	Ravi mahato	AJU/232202	Ravi mahato	mahato ravi 531@gmail.
23	Saurav Kumar	AJU/231185	Saurav Kumar	Sauravkuma 1926202@gm
24	Piyush Mahato	AJU/232198	Piyush Mahato	Pulchand mahato 84 @gmail.co
25	Saroj Prajapati	AJU/232178	Saroj Prajapati	Saroj praja 911@gmail.
26	SOURAVKUMAR	AJU/232156	Sauravkumar	Sourav Kumar25 @gmail.
27.	Suraj choudhary	AJU/231281	Suraj.	Surajchoudhar 9439@gm

FEEDBACK OF THE STUDENT.

Name :- Kitik KUMAR SAH.

Enrollment no :- AJU/240444.

Date - 29/07/2025.

I want to express my interest in solar energy and to share some thoughts on its uses and benefits. As students, we are learning more about renewable energy sources, and I believe solar energy is one of the most promising solutions for our energy needs and environmental concerns.

Solar energy is the energy we get from the sun. It is used to generate electricity through solar panels, heat water using solar water heaters, and power devices like solar-powered cars. Many homes, schools, and businesses are now using solar power to meet their electricity needs.

One of the biggest benefits of solar energy is that it is clean and renewable. It does not cause pollution or harm the environment. Unlike fossil fuels, solar energy does not release harmful gases into the air, making it a great way to fight climate change. It is also cost-effective in the long run, as sunlight is free and solar panels can help reduce electricity bills over time.

Another important benefits is the solar energy can be used in remote areas where there is no access to electricity. This can help improve education, health, and the quality of life in many parts of world. In conclusion, I believe solar energy is a smart and sustainable choice for the future.

Thank you!

Name:- Shekh Shahid
Enrollment No.:- AJU/240067

I wanted to share some thoughts on the uses and benefits of thermal energy and solar energy, which we have recently taught by Souvik Sir.

As a student who is concerned about the environment and the future of our planet, I find these renewable energy sources very important and worth discussing.

Thermal energy, which comes from heat, is widely used in everyday life. It is used in cooking, heating water, and generating electricity in thermal power plants. Industrial processes also rely on thermal energy for manufacturing goods. It is a fundamental form of energy that helps run many systems that we depend on daily. On the other hand, solar energy is a clean and renewable energy source derived from sunlight. It is used to generate electricity through solar panels, heat water in solar water heaters, and power various devices like calculators, streetlights, and even vehicles.

One of the main benefits of solar energy is that it is environmentally friendly and reduces our dependence on fossil fuels, which cause pollution and climate change. Using solar energy helps save money in the long term, promotes sustainability, and reduces carbon emissions.

In conclusion, I believe that encouraging the use of thermal and solar energy is crucial for a cleaner and healthier future.

Thank you.