

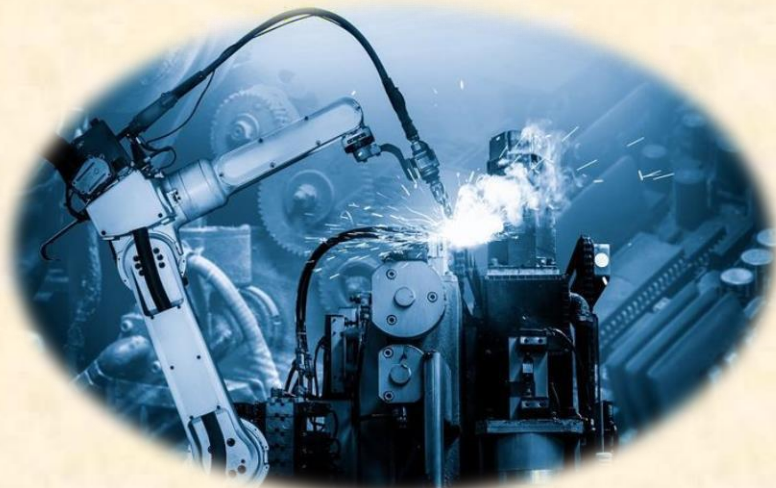


**Raj Kumar Goel Institute of Technology**

5KM Stone, Delhi - Meerut Road, Ghaziabad (U.P.) 201003

# Mech-Wiz

Department of Mechanical Engineering



**VOLUME 2**



# Raj Kumar Goel Institute of Technology

5KM Stone, Delhi – Meerut Road, Ghaziabad (U.P.) 201003

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## WISHES FROM VICE CHAIRMAN



**SHRI AKSHAT  
GOEL**

**VICE CHAIRMAN  
RKG GROUP**

*New is the year, new are the hopes, new is the resolution, new are the spirits, and new are my warm wishes for you. As you pursue your hopes and dreams, may this year bring you much success and may your journey be wonderful.*

*May every moment of this year would be unique, filled with pure pleasure and each day comes out like exactly what you want...*

## MESSAGE FROM EDITOR-IN-CHIEF



**Dr.A.K. Yadav**  
HOD, MED

*Casting the world, forging the campus, shaping the universe, welding the rest of all branches, because, "We are the Men, We are the Machine, and We are Mechanical Engineer's."*

*Mechanical engineers explore and add value to the versatile fields of automotive, airspace, designing the power plants, and emerging opportunities in the field of robotics, automation, mechatronics and software developments.*

# DEPARTMENT OF MECHANICAL ENGINEERING

## SESSION 2022-23

### EVENTS ORGANIZED

2<sup>nd</sup> INTERNATIONAL CONFERENCE, SEGT ON SUSTAINABLE ENERGY & GREEN TECHNOLOGY  
23-24 JUNE 2023, ME DEPARTMENT, RKGIT GHAZIABAD (UP)



Dignitaries on the dais

### आरकेजीआईटी में अंतर्राष्ट्रीय संगोष्ठी का आयोजन, 200 शोध पत्र प्राप्त हुए



#### अग्रह संवाददाता

गान्धियाबाद। मेरठ रोड स्थित आर.के.जी.आई.टी. (राजकुमार गोवल इंस्टीट्यूट ऑफ टेक्नोलॉजी) के मैकेनिकल इंजीनियरिंग विभाग द्वारा दो दिवसीय अंतर्राष्ट्रीय संगोष्ठी का आयोजन किया गया। जिसका विषय सस्टेनेबल एनर्जी और ग्रीन टेक्नोलॉजी रहा। संगोष्ठी के उद्घाटन सत्र में मुख्य अतिथि डॉ. सुनील कुमार, विभागाध्यक्ष सी.एस.आई.आर., नोरी

और डॉ. प्रवीण पचौरी, निदेशक यू.पी.आई.डी नोएडा ने सस्टेनेबल एनर्जी के निदेशक डा.बी.सी.शर्मा, एक्जीक्यूटिव डायरेक्टर डॉ.डी.के.चौहान, आर.के.जी.यूप.एडवर्ड्स डॉ. लक्ष्मण प्रसाद ने भी सस्टेनेबल एनर्जी की महत्ता पर बल दिया।

इस अवसर पर नेताजी सुभाष मुनिबंसिंटी ऑफ टेक्नोलॉजी, दिल्ली के डॉ. भवनेश कुमार और डॉ. अर्जुन स्वामी ने भी अपने व्याख्यान दिये और

सस्सेनिविलिटि की उपयोगिता को

समझाया। संगोष्ठी के संयोजक डॉ. अशोक कुमार यादव ने बताया कि देश-विदेश से लगभग 200 शोध पत्र प्राप्त हुए हैं। जिसका उनके विभाग द्वारा चयनित रिव्यू टीम ने रिव्यू किया और 124 शोध पत्र चयनित किये। इस अवसर पर संगोष्ठी के कन्वेंरर डॉ. सौरभ, फंकज कुमार शर्मा और संगोष्ठी के अन्य सदस्य सोरभ सिंह, आरती, गोव, प्रिया, नीरज, अमित आदि उपस्थित रहे।



आर  
गार्  
गुरु  
होने  
स्था

Press release of SEGT-2023



Certificates distribution in the presence of Prof. Dibakar Rakshit IIT, Delhi

**ROBOLUTION - ROBODASH AND ROBOMICE**  
**(25<sup>TH</sup> FEB-26<sup>TH</sup> FEB 23)**

Yantrikom (society of Mechanical Engineering Deptt) organized a one-and-a-half-day event ROBOLUTION on 25<sup>th</sup> feb and 26<sup>th</sup> feb 2023. 44 teams comprising of first and second-year students participated in the same.

The teams were divided into two groups A and B and both events ROBOMICE (maze) and ROBODICE (hurdle race) took place simultaneously.



**Results:**

**ROBOMICE** 1<sup>st</sup> position SHERIFF  
2<sup>nd</sup> position THE CYBORG  
3<sup>rd</sup> position THE ENGINEERS

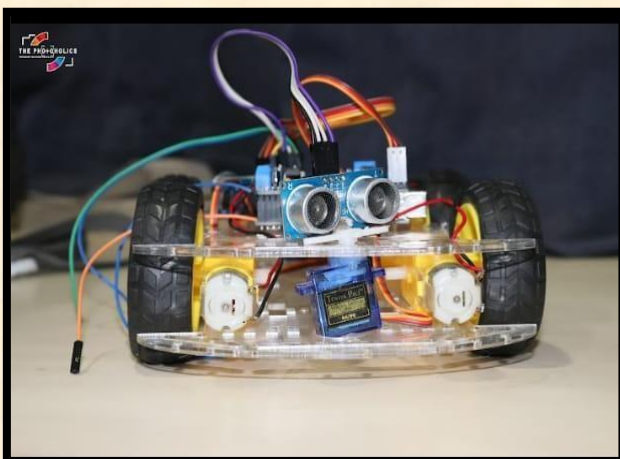
**ROBODASH** 1<sup>st</sup> position BANDITS  
2<sup>nd</sup> position ASSASIANS  
3<sup>rd</sup> position BAJRANG DAL

**BEST DESIGN-** MECH MARVEL

**BEST INNOVATION-** THUNDERBOLTZ



**ABHYUDAYA** - (National Level Project Competition on 17-05-2023) [THEME – Hardware Track for robotics, renewable energy, waste management and drone technology Software Track for design gaming, digital india]



## INDUSTRIAL VISIT



INDUSTRIAL VISIT AT PK PRECISION TOOLS, GREATER NOIDA UP. ON OCTOBER 18, 2022.

## FACULTY ACHIEVEMENT



### Congratulations

Heartiest Congratulations to Dr. Pankaj Kumar Sharma to receive PhD degree from Delhi Technological University (DTU) Delhi on



### Congratulations

Heartiest congratulations to Dr. Ashok Kumar Yadav and Equipment for Drone Based Methane Detection and Absorption from Water Bodies”.



Mr. Saurabh Singh, attended International Conference, Lisbon Portugal

# STUDENT'S ACHEIVEMENT

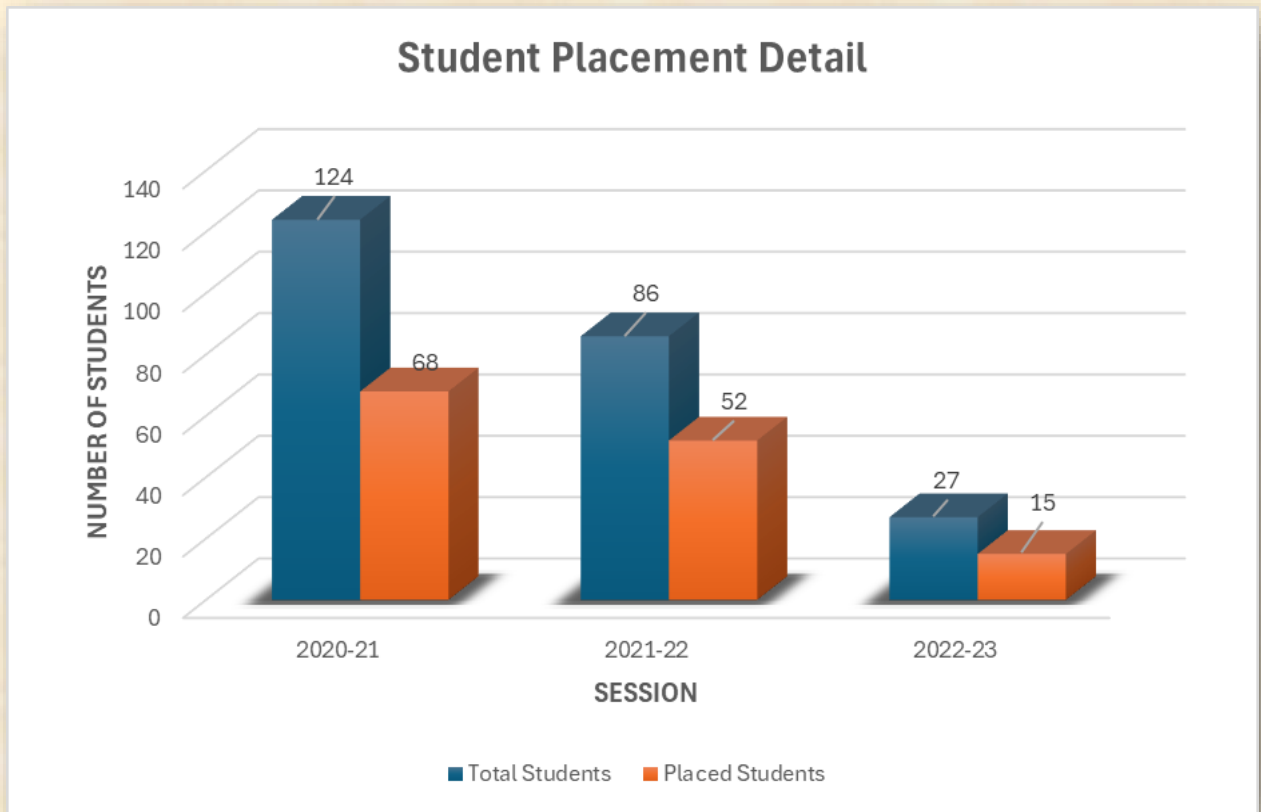
Kamal Kant, student of third year won first prize in AKTU zonal level fest in Junkyard War and qualified for State level and also won second prize in Drone competition held at GL Bajaj.



## Research Article Published in SCI Journals

- Dewangan A., Mallick A., **Yadav A.K** et al., (2023). Production of oxy-hydrogen gas and the impact of its usability on CI Engine combustion, performance, and emission behaviors, *Energy*, 278, 127937, (Publisher - Elsevier; SCI; Impact Factor – 9.0)
- Khan O., M Parvez, **Yadav,A.K.** et al.( 2023). Modelling of Compression Ignition Engine by Soft Computing Techniques (ANFIS-NSGA-II and RSM) to Enhance the Performance Characteristics for Leachate Blends with Nano-additives, *Scientific Reports*, 13:15429, (Publisher – Nature ; SCI, Impact Factor- 4.6)
- Ahmed A., **Yadav, A. K.**, Singh A.,D.K. Singh, Multi-Response Optimization to Improve the Performance and Emissions Characteristics of A VCR Engine Fueled with Microalgae Spirulina (L.): A Response Surface Methodology Approach Coupled with Genetic Algorithm, *Environ. Dev. Sustain*, 2023, Doi:10.1007/s10668-023-04016-z (Publisher-Elsevier; SCI; Impact Factor- 4.9)
- Ahmed A., **Yadav, A. K.**, Singh A., Process optimization of spirulina microalgae biodiesel synthesis using RSM coupled GA technique: a performance study of a biogas-powered dual-fuel engine, *Int. J. of Environ Science and Tech.* 2023; 21 , 169–188 (Publisher -Springer; SCI, Impact Factor -3.3)
- Ahmed A., **Yadav, A. K.**, Singh A., Application of machine learning and genetic algorithm for prediction and optimization of Biodiesel Yield from Waste Cooking Oil, *Korean J. of Chem. Engg.* (2023) 40, 2941–2956 (Publisher -Springer; SCI, Impact Factor -3.14)
- Dewangan, A, Mallick, A, **Yadav, A.K**, Ahmad, A, Alqahtani, D., S Islam., Combined Effect of Operating Parameters and Nano Particles on Performance of a Diesel Engine: Response Surface Methodology coupled Genetic algorithm Approach, *ACS Omega* , 2023 , 8 (27), 24586–24600, (Publisher - American Chemical Society; SCI, Impact Factor-4.13)
- Ahmed A., **Yadav, A. K.**, Singh A., Enhancement of Biogas Yield from Dual Organic Waste Using Hybrid Statistical Approach and Its Effects on Ternary Fuel Blend (Biodiesel/n-butanol /Diesel) Powered Diesel Engine *Environmental Progress & Sust. Energy*, 2023 doi.org/10.1002/ep.14163, (Publisher -Wiley; SCI, Impact Factor -2.8)
- Yadav M., Karimi, M.N., **Yadav A.K.**, "Effect of Graphene Oxide Nanoparticles Dispersed Biodiesel on Combustion, Performance, and Emission Characteristics of a Diesel Engine" *J. of Process Mechanical Engineering: Part E.*, 2023, <https://doi.org/10.1177/09544089231209139> (Publisher - SAGE; SCI, Impact Factor- 2.4)
- Ahmed A., **Yadav, A. K.**, Singh A., Optimization of Cavitation-Assisted Biodiesel Production and Fuel Properties from Neochloris Oleoabundans Microalgae oil using Genetic Algorithm and Response Surface Methodology, *J. of Process Mechanical Engineering: Part E.* 2023, (Publisher - SAGE; SCI, Impact Factor- 2.4)
- Dwevedi, S.P., **Yadav A.K.**, Saxena A., Tribo-Mechanical, Physical, and Thermal Behaviour of Al/Si3N4 composite with and without the Addition of Cu, Ni, and Cr Entropy Elements. *Journal of Process Mechanical Engineering: Part E.*, 2023, doi.org/10.1177/09544089231189663 (Publisher - SAGE; SCI, Impact Factor.

# PLACEMENT



## Alumni “Rendezvous with Glorious Batch mates”



**Aman Kumar (2012-2016)**

Assistant Commandant Indan  
Coast Guard



**Utkarsh Srivastava (2011-2015)**  
Assistant Engineer Maintenance  
Adhunik Alloys & Power Ltd.  
Kandra Jamshedpur



**Gyan S Kushawaha (2011-2015)**  
Examiner of Patents &  
Design



**Ankit Patel (2012-2016)**  
Scientist - ISRO  
Vikram Sarabhai Space  
Centre Aluva, Kerala



**Loveleet Kumar (2012-2016)**  
Assistant Divisional Engineer  
Indian Railways  
(IES)



**Deepshikha (2011-2015)**  
Software Developer Intelenet  
Global Services



**Vikas Singh (2012-2016)**  
Production Engineer  
BHEL



**Abhishek K Verma (2008-2012)**  
Sales Engineer  
(TS) IOCL



**Rajkumar Singh (2008-2012)**  
Deputy Manager  
NTPC  
Sonebhadra



**Pooja Tripathi (2009-2013)**  
Commercial Engineer  
RRUVNL



**Nalin Singh Sirihi (2010-2014)**  
Scientist D  
ISRO



**Vatsala Pandey (2011-15)**  
Lieutenant Indian  
Army

*Regards*

*Department of Mechanical  
Engineering*

*Please write to us for your Views Column &  
Suggestions*

*hodme@rkgit.edu.in*