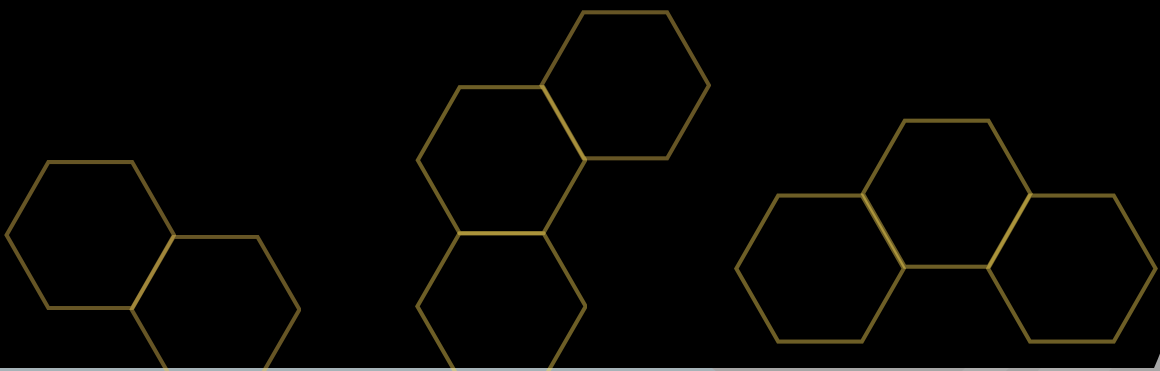




DEPARTMENT OF AERONAUTICAL ENGINEERING NEWSLETTER



2023 edition





Greetings from the department!

It gives me immense pleasure to know that a new chapter in the form of a brochure for the Aeronautical Engineering branch is being compiled by our dear students of the department. I wholeheartedly wish them in this endeavor. The branch of Aeronautical Engineering is presently being run under the Department of Mechanical Engineering. While the Department of Mechanical Engineering is nearly 41 years old, the branch of Aeronautical Engineering is relatively new in RTU. The faculty is young, talented, bright, and academically strong. They are active in training and research and have diverse backgrounds in Aeronautical and Mechanical engineering. In addition to theory and applications, our faculty extensively emphasizes hands-on experience in the undergraduate curriculum. The department has well-equipped labs, workshops, and other infrastructure to help students in attaining the highest standards in academics, research, and professional skills.

The department also excels in flying its wings high in co-curricular activities by organizing and participating in workshops, and conferences at the national level to provide the students a platform to showcase their talents. Industrial visits and internships are arranged in R&D labs, industries, and academic institutes to broaden their depth of knowledge.

Creating better human beings is the motto of the Department and it is accomplished by providing an overall development that nurtures them towards becoming strong and focused human beings with values that are embedded in life. The main focus of the department is to empower students with sound knowledge, wisdom, experience, and training, both at the academic level of engineering and in the highly competitive global industrial market.

I appreciate the efforts of our vibrant Training and Placement Cell which is in constant touch with industries for the training and placement of our students. I am sure that our recruiters find our students very competent and they will be visiting us regularly.

धियो यो नः प्र चोदयात्

.(Deploy our intellect on the right path)

With best wishes,

Dr. A.K. Chaturvedi

Head of the Department



Dr. S. S. Godara

Coordinator, Aeronautical Engineering

U.G COORDINATOR'S MESSAGE

The BTech program in Aeronautical Engineering was started in the year 2011 and It's now NBA accredited.

The program aims to provide a high-quality education at an international level in Aeronautical Engineering, well-grounded in the fundamental principles of engineering, to inspire and prepare students for leadership positions with an understanding of the strategic value of their work, so that they can effectively participate in the development, maintenance, and operation of the aeronautical industries to achieve successful careers.

This program is also interested in conducting and promoting scientific research and its application for the development of the aviation industry, disseminating new knowledge through research outputs in various forms, such as dissertations/publications, workshops, conferences, etc. Further, we are continuously trying to collaborate with reputed industries and academic organizations for the betterment of Aeronautical Engineering students and faculties.

After completing BTech in Aeronautical Engineering our students are placed throughout the globe in reputed industries and organizations such as DRDO, HAL, ISRO, DGCA, Atomic Energy Commission Paris, Eaton, Airbus, Honeywell, Boeing India, Tata SIA Airline (Vistara), Air India, Spice Jet, IndiGo, Mercedes, Software industries, banking sectors, Officers in armed forces, etc. For more details about students' placement/job, visit the departmental webpage's placement section.

To be a hub for learning and innovation in aeronautical engineering, sparking to explore and contribute at national and global levels, students are welcome to join the BTech program in Aeronautical Engineering.



Dr. Brajesh Tripathi

Associate Professor, Aeronautical Engineering

U.G COORDINATOR'S MESSAGE

The Undergraduate Program of Aeronautical Engineering at University Departments, Rajasthan Technical University, Kota fosters a creative and supportive environment for the students for stretching their intellect and innovativeness. An Aeronautical engineering curriculum is an exclusive place for students from diverse backgrounds to expand their perspectives in an enriched learning atmosphere. The program Aeronautical Engineering offers various educational opportunities to have close interaction between students and faculty members.

The program consists of various prerequisite courses and modern technologies used in Aeronautical Engineering. As the students complete their sixth semester, an industrial training/internship is mandatory to develop the skills necessary to meet the demands of the industries and ever-changing technological society. Various student activities during the entire duration of the course not only enhance their technical skills but also develop curiosity among them about other engineering courses. In this way, students participate in an exchange of ideas that broadens their knowledge and perspectives while expanding their own opinions.

Students of the program have a well-designed curriculum taught by distinguished and dedicated faculty members. The program prepares students for leadership qualities at an early stage of their educational career through a wide range of academic activities. Furthermore, future employers will recognize the fact that these students are committed to excellence, and engaged in creative and developmental endeavors.

I wish these skilled individuals a great future ahead!

RTU AT A GLANCE



Rajasthan Technical University (RTU) is the main body of KOTA in Rajasthan to which all engineering colleges in Rajasthan are affiliated. The university was established in 2006 by the Government of Rajasthan to enhance technical education in the state. The college was established in the year 1981 as Engineering College Kota.

The University affiliates about 74 engineering colleges, 3 Architecture Colleges, 17 MCA colleges, 38 MBA colleges. More than 2.5 lakhs students study in the institutes affiliated with the university.

VISION:

To be recognized globally as a distinguished center for delivering quality education and nurturing research and development with a motto of inculcating innovation and entrepreneurial skills to compete with ever-changing industrial demands and social needs.

MISSION:

- 1.To impart quality education to the students to build their capacity and enhance their skills.
- 2.To maintain a state of the art facilities to provide a collaborative environment that stimulates faculty, staff, and students with opportunities.
- 3.To promote innovation, research, and development activities in respect to real life challenges.
- 4.To provide academic environment of excellence, leadership, ethical guidelines to the students.





The B.Tech program in Aeronautical Engineering was started with an intake of 30 students in the session 2011-12. This program is designed in such a way that students opting for this course can gain knowledge of the Aeronautical, Aerospace as well as Mechanical sectors.

The goal of the B.Tech program in Aeronautical Engineering is to train the students in a broad-based manner with an equal focus on applications in aircraft engineering, rocket, and space technology. The curriculum is designed in such a way that it imparts knowledge about aerodynamics, structural mechanics, propulsion, flight mechanics, and space dynamics.

Furthermore, additional elective subject choices are also available enabling students to further pursue their interests.

Along with these, the students also acquire sufficient skills in mathematics, physics, chemistry, and humanities. The students also gain exposure to computational skills and the use of various advanced software.





Students of the Aeronautical Department also organize different level activities where students from other branches also participate and understand the aerodynamic concepts. They are also given flying experience through the simulator facility present in the department.



Figure 1: Student gain Practical experience on the working dynamic models of the aircrafts



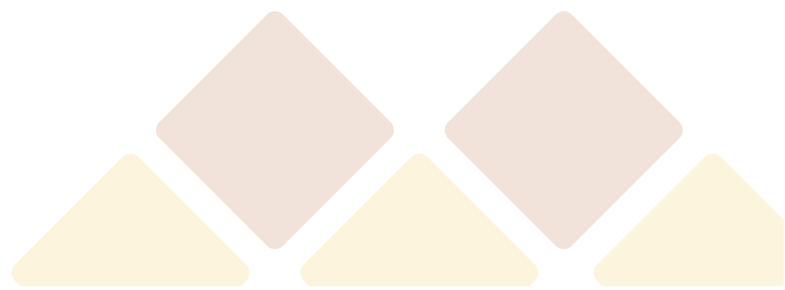
Figure 2: Students from ECE and EIC launching their model of Water Rocket in the Water Rocket Competition



Figure 3: Student gaining Flying experience through Flight Simulator Facility in the department



Figure 4: Glimpse of HAL visit of the students from the department





Down Memory Lane

In conversation with Prof. Sanjeev Mishra



It is indeed a great pleasure to know that students and faculty of Aeronautical Engineering is bringing out a departmental brochure. My best wishes for a very successful future for the department. My association with aeronautics is very old and long. I was very fortunate in doing my practice school (PS) II at NAL, Bangalore in 1983. I was at the National Aeronautical Laboratory, NAL (now National Aerospace laboratories) for one complete semester of six months. We were doing testing and trial of PSLV, a pride of the nation. I was very fortunate to have met a great aerospace scientist and foremost Engineer (late) Dr. Sitaram Rao Valluri, Director of NAL at that time. He was the first director general of the Aeronautical Development Agency, ADA, and was instrumental in envisaging and developing the LCA project. I still cherish the old memories of attending his several meetings followed by lunch. He passed away on 23 January 2019 after attaining the age of 94.

At the University department of Mechanical Engineering, I had a great opportunity to interact with some of the best brains in aeronautical engineering in the form of faculty members of the department. They are very dedicated and knowledgeable faculty members. The department has acquired several sophisticated modern pieces of equipment like a wind tunnel, simulators, etc. which are being installed in the new premises of the department. The department has a great future under the present leadership of such talented faculty members.

During my tenure as Head when I interacted with several students, I found them to be very bright and full of new innovative ideas. With the support of students and faculty members, we could think of Student Activity Centre (SAC). Several clubs were opened and today I feel proud to know that many of them are successfully running. I always feel that students are an asset to the institution and are to be nourished with lots of love and affection. I am very fortunate that during my 36 years of teaching I have taught students who have risen to high positions in corporate and academic fields. I always inspire my students to be honest, ethical, hardworking, and sincere toward their job. Whatever task you take you should give your best efforts to complete it. The cost of lost opportunity is very high.

One more piece of advice to my dear students is do not think small. Give a feather to your ambitions and then sit down to fulfill them. Optimum planning with monitored execution will always give good results.

Once again, I extend my best wishes to a very successful launch of departmental brochure and hope that this brochure would bring out the best of the department for others to see.

With love
Prof Sanjeev Mishra



FACILITIES AT UD



CENTRAL LIBRARY:

The central library of UTD, RTU Kota was established in 1984. It caters to the information need of the faculty members, students, staff, and research scholars. It works on an open-access system.

It is well-furnished and well-protected with fire alarms and CCTV surveillance. It has a specialized collection of Books, Journals, & other resources in Sciences, Engineering and Technology,

Social Sciences and Management, Humanities ranging

from printed books, e-books, and high-speed internet connectivity. The Central Library subscribes to national and international journals through print and e-journals. The Central Library is housed in a two-storied separate building that can accommodate around 150 users at a time to the academic and research activities



ACADEMIC BLOCKS

The special feature of UD is the well-planned and comprehensive infrastructure provided for both students and faculties. Four academic blocks in UD are extremely specialized in their own particular field.

The layout has been excellently planned and every block is equipped with necessary amenities whilst providing the perfect atmosphere for both studies and research.

PROCTOR'S OFFICE

The office of the Chief Proctor of UD, RTU Kota is established to inculcate spirit of discipline and foster an healthy environment to enhance creative and skillful activities among the students. The college monitors the progress of the students at a closer level with the help of this office and its staff.



BANK AND POST OFFICE

Banking facilities at UTD are provided by PNB Bank through its RTU Campus, Kota Branch which is located on the premises. ATM facilities, Internet Banking, and Tele-banking facilities are available here. There is also a Post Office on the RTU premises.

STUDENT HOSTELS

There are four boys hostels and two girls hostel which can accommodate 800 students. The hostels are well designed and furnished, well- protected with CCTV surveillance, having good food services and 24x7 high speed internet connectivity. Two more capacious hostel buildings are currently under construction.

DISPENSARY

A full-fledged Dispensary is available on the campus. It is supervised by a residential medical officer and two compounders.

Student Activity Center:

To encourage student towards the extracurricular activities, the college also has a Student Activity Center, which is run by the SAC council and allows students to participate and even organize Technical, Cultural, and Sports activities in the college.

There are total 29 active clubs in the Student Activity Center where 8 are Technical Clubs, 6 Cultural clubs, 7 Social Clubs, 8 Sports clubs:

S. No.	Technical Clubs	Cultural Clubs	Social Clubs	Sports Clubs
1.	AeroModelling Club	Dance Club	NCC	Cricket Club
2.	Programming Club	Dramatics Club	NSS	Badminton Club
3.	Robotics Club	Music Club	IN-DEED club	Volleyball Club
4.	Society Of Automotive Engineers	Shutterbugs (Photography and Filming Club)	Inspire Club	Athletics Club
5.	Words' Worth	Literature Club	VSC	Football Club
6.	Master Builders Club	Art Club	Way To intern	Table-Tennis Club
7.	Marketing and Management Club		Eco Club	Chess Club
8.	RTU Finworld		Scholarship Club	Lawn Tennis Club



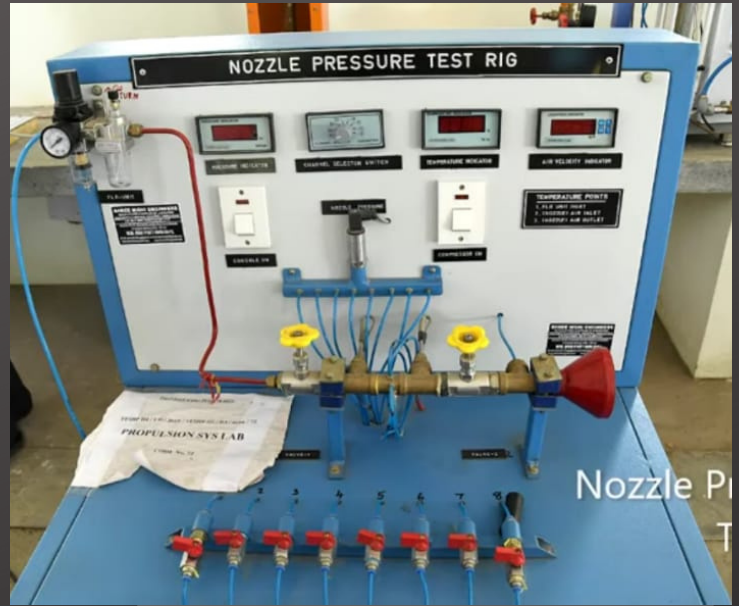
LAB IN FOCUS

Department Labs

UG/PG LAB EXPERIMENTAL SETUPS



Blower Balance Test Rig



Nozzle Pressure Test Rig

Fluid Analysis Equipments:



Sub-Sonic Wind tunnel



RAM JET Engine Test Rig

RAM Jet Engine test Rig

Lab Facilities in the Department

The Aeronautical Engineering Department has always been at the forefront of innovation and excellence. And the well-set-up laboratories of the department play a vital role in innovation and help deliver students practical knowledge with modern equipment.

The available labs for the students are:

- Mechanical Workshop

- Heat Transfer LAB

- Fluid Dynamics LAB

- Aerodynamics LAB

- Vibrations LAB

- Instrumentation LAB

- Metrology And Metallurgy LAB

- Material Testing LAB

- Mechatronics LAB

- Avionics LAB

• Propulsion LAB

• Structures LAB

• SOM LAB

• FEM LAB

• Composite Lab

• Simulation Lab

• Aircraft Systems Lab

SPECIAL WORKSHOPS AND ACTIVITIES

Special workshops and activities are held regularly to help students gain more practical skills and knowledge. Also students are regularly taken on educational tours to various prestigious lab facilities, establishments and air shows.

- Unmanned Aerial Systems, a state-level Aeronautical TechFest
- Glider Making Workshop:
- Ornithopter Making Workshop:
- Quadcopter Making Competition:



FACULTY

The main strength of the Aeronautical Engineering Department are its motivating and expert faculty members who inspire students to pursue academic and professional excellence. Consistently strive to create a challenging and engaging learning environment in which students become life-long scholars and learners.

Prof. A.K. Chaturvedi
Head of the Department
(Mechanical Engineering)



Prof. Brajesh Tripathi
Coordinator, Aeronautical Engineering
Qualification: M.Tech., PhD(IIT Kharagpur)



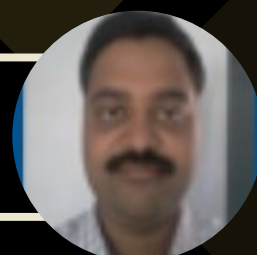
Prof. Anshul Khandelwal:
Assistant Professor
Qualification: M.Tech. (IIT Kanpur)



Prof. Anshul Kumar Bansal
Assistant Professor
Qualification: M.Tech.(IIT Bombay).



Prof. K. S. Bhati
Assistant Professor
Qualification: M.Tech(IIT Kanpur)





Prof. Mohd. Shahid
Assistant Professor
Qualification: M.Tech. (JNTU Hyd.)



Prof. Pankaj Sharma
Assistant Professor
Qualification: B.E., M.Tech., Ph.D. (RTU, Kota)



Prof. S. S. Godara
Assistant Professor
Qualification: M.Tech. (IIT Kharagpur), Ph.D (IIT Dhanbad)



STUDENT OUTREACH

In the year 2022, an inter-college **Water Rocket competition** was successfully organized with a total number of participants of around 800 by the aeromodelling club "**Flying Mustangs**".

The project proposal of **Vedant Gupta** on the Hypersonic Single Stage to Orbit (SSTO) Engine cleared First Level at ISRO-RAC.

The project proposal of **Harish Gurjar** and **Dinesh Yadav** on Film Cooling of Nozzle Divergent at supersonic conditions cleared First Level at ISRO-RAC in the year 2022.

The project proposal of **Akshat Bhargava** on Film Cooling of Nozzle Divergent at supersonic conditions cleared First Level at ISRO-RACS in the year 2022.

Akshat Bhargava Student in their final year selected for attending a conference organised by ISRO in 2022

Rahul Kumar final year student won second prize in a drama competition organised by Dadasaheb Phalke Icon Award Films, Mumbai in year 2022.

Abhinav Vyas Final Year Student presently on the rank of **CWO (cadet warrant officer)** on 20th November 2021 in 7 Raj. Air Sqn NCC, Kota and was also **Gold Medalist** at IGC (Inter-Group Competition) - best cadet gold medal in Rajasthan dt. 07 November to 17 November 2021 and also completed several reputed NCC camps like:

RDC 2022 26 Dec 2021 to 5 Feb 2022

Yogesh Kumar and **Adul Majid**, Final Year Student Rank holders at 7 Raj. Air Sqn NCC, Kota and they have done several reputed camps like:

Done IMA attachment camp

And are also Selected for :

YEP (feb 22)

Selected for Para basic course. (Nov 22)

Selected as a best cadet of Kota group to represent Rajasthan Dte.(October-november)

Students of Sixth Semester were also able to get internship at different reputed organisation and institutes like **DRDO, HAL, IOCL Gujrat, NITTTTER Kolkata, Indutch Composite Technology Pvt. Ltd., etc.**

RETIRED FACULTY MEMBERS

{RETIRED on 30 September, 2022}

Prof. Sanjeev Mishra

The department gratefully remembers their immense contributions and wishes them a happy and enjoyable retired life ahead.

OUR ALUMNI.. OUR PRIDE!



GATE Rankers



MAHENDRA GEHLOT (2015-2019)
SECURED AIR 3 IN GATE 2020



VEDANT GUPTA (2017-21)
SECURED AIR 5 IN GATE 2021



AMIT VASHISTHA (2016-20)
SECURED AIR 6 IN GATE 2022



SANJAY SHARMA (2015-2019)
SECURED AIR 8 IN GATE 2016



VIKRANT VASHISTHA(2016-20)
SECURED AIR 10 IN GATE 2021



RITU REWAR (2012-2016)
SECURED AIR 35 IN GATE 2017



MUKESH GOKLANI (2016-20)
SECURED AIR 39 IN GATE 2021



MAYANK AGRAWAL (2017-2021)
SECURED AIR 59 IN GATE 2021



ANISH SINGH (2017-21)
SECURED 74 RANK



PUNEET MEHRA (2015-2019)
SECURED AIR 77 IN GATE 2020



VEDANT SALPHALE (2018-22)
SECURED AIR 80



ANUBHAV JOSHI (2017-21)
SECURED 98 RANK IN GATE 2021

OUR ALUMNI.. OUR PRIDE!



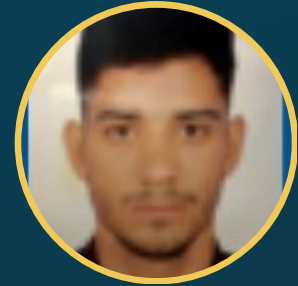
Distinguished Alumni



Parul Jain
BATCH 2011-2015
Aeronavigation (Hitech Digital i-
Solutions LLP)



ROHIT ANAND PANDEY
BATCH 2011-15
VOLVO EICHER COMMERCIAL



PUSHPENDRA
BATCH 2011-15
RRB, NTPC



TRILOK SONI
BATCH 2011-15 Matellio
India Pvt. Ltd.



Princy Sharma
BATCH 2012-2016
AME (Air India)



Sumit Nehra
BATCH 2012-16
GST Inspecto (CBIC- Mumbai)



AVICHAL SAXENA
BATCH 2012-16
Flight Safety (TATA SIA AIRLINES LTD.
(VISTARA))



Aashutosh Jangid
BATCH 2012-16
Postal Assistant



HIMANSHU SINGLA
BATCH 2012-16
REYRSON UNIVERSITY, CANADA



Prashant Dadheech
BATCH 2012-16
Business Analyst (Navatar
Consulting Pvt Ltd)

OUR ALUMNI.. OUR PRIDE!



Aditya Khichar
BATCH 2013-17
Inspector @CBIC



MOHIT TALREJA
BATCH 2013-17
L&T LIMITED



Chintu Jatav
BATCH 2013-17
Indian railway-Mumbai

Young Alumni Achievers



Mahendra Gehlot
BATCH 2015-19
M.Tech IISc Bangalore (GATE AIR - 10)



Vedant Gupta
BATCH 2017-21
M.Tech IISc Bangalore



Vikrant Vashistha
BATCH 2016-2020
DRDO (GATE AIR - 10)



Mohit Kundal
Batch 2016-2020
DRDO




Mayank Agrawal
BATCH 2017-21
M. Des., IISc Bangalore




Jayesh Vaishnav
BATCH 2017-21
Faculty at Career Point, Jammu


Young Alumni Achievers




Puneet Mehra
BATCH 2015-19
AIRBUS India




Krishna Shekhawat
BATCH 2015-19
Aeronavigation (Hi Tech
pvt. lmt)




Mousam Kumari
BATCH 2015-19
System Engineer (INFOSYS)



SauravKumar
BATCH 2015-19
OTA Chennai



Pawan Kumar Tiwari
BATCH 2015-19
INFI LEAGUE MOTORSPORTS LLP



Milan K. Chauhan
BATCH 2015-19
Centran Bank of India



Ishank Srivastava
BATCH 2015-19
Hi Tech Pvt. Ltd.



Yogesh Rathore
BATCH 2015-19
Jio



ACHIEVEMENT OF THE LAST SESSION

Anish Singh
BATCH 2017-21
GATE Rank 74

Vedant Salphale
BATCH 2018-22
GATE Rank 80

Harish Gurjar
BATCH 2019-23
INT. NITTR Kolkata

Akashat Bhargav
BATCH 2019-23
Int. SAC ISRO

Vishal Mehra
BATCH 2019-23
Int. SAC ISRO

Abdul Majid
BATCH 2019-23
SUB LIEUTENANT

NITESH PATIDAR
BATCH 2019-23
Qualified GATE 2023

Mohd Moin khan
Batch 2019-23
Qualified GATE 2023



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Rajasthan Technical University, Kota

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