RAJ KUMAR GOEL INSTITUTE OF TECHNOLOGY

Affiliated to Dr. A.P.J. AKTU, Lucknow
5th KM Stone Delhi-Meerut Road Ghaziabad, U.P.

A Half Yearly Department Newsletter

Volume 1, Issue 1

DIMENSIONAL DISCOVERIES

> THE BEST WAY TO LEARN DATA SCIENCE IS TO DO DATA SCIENCE.

Department of Computer Science & Engineering

(Data Science)

EDITORIAL TEAM:

Faculty Members: Dr. Preeti Sharma,
Ms. Pooja Chaudhary
Student Members: Ms. Poorva Tyagi
Ms. Sejal Singh
Mr. Sarthak Aggarwal
Mr.Tarandeep Singh,
Ms. Sneha

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ABOUT DEPARTMENT

Data science engineering is a broad-spectrum and multidisciplinary field (e.g., natural sciences, information technology, and medicine). The subject implies scientific methods to find and understand patterns that are given with big data.

While many inter-disciplinary subjects overlap with data science or use part of the techniques, the Data Science is interesting and can be a gateway to more professions.

HOD DESK

Message

Data Science Department goal is to be at the forefront of leveraging cutting-edge techniques and technologies to extract valuable insights and knowledge from vast and complex datasets. In today's data-driven world, Data Science Engineers plays a crucial role in various industries and domains, ranging from business and healthcare to finance and technology.

By applying a combination of statistical analysis, machine learning, artificial intelligence and domain expertise, Data Science Department always place an important role to produce promising Engineers uncover hidden patterns, create predictive models, and provide actionable recommendations that drive innovation and growth.

VISION & MISSION

VISION:

To prepare next generation practitioners and researchers for global competent data analytic world with the highest standard of professional ethics.

MISSION:

- M1 : To develop industry conducive environment by providing state-of-art infrastructure to compete in data-driven world.
- M2 : To empower students to provide innovative and cognitive solutions with the help of data analytical skill set and new advancements in high performance computing
- M3 : To build data intensive system through socio-economic aspect by promoting cross-disciplinary thinking that expands expertise in cutting edge technologies and acquire professional ethics .

HIGHLIGHTS

- Association with software companies Netcamp, Softpro etc to provide training and internship in Java, Networking, Android and Python.
- Value added courses are running in department on the competitive sites like Hacker Ranker, CodeShef and Code Ninja etc.
- Workshop / Guest-lectures / Analytical Club for students to give exposure to enhance their inter disciplinary skill.
- Active Participation in Zonal Sports, Drone competition and The Dramatic Societies organized by AKTU.
- Organized Industrial Visits for students to acquire knowledge about the current industrial requirements and Trends.
- Knowledge sharing session for students to enhance their technical knowledge according to current trends

DATA SCIENCE TEAM

Dr. Preeti Sharma
Professor

Mr. Manas Tripathi
Assistant Professor

Ms. Pooja Chaudhary
Assistant Professor

Ms. Neha Paliwal
Assistant Professor

Ms. Bhawna Goel
Assistant Professor

Mr. Subhash Vats
Assistant Professor

Ms. Sonia Choudhary
Assistant Professor

Mr. Abhinav Lodhi
Assistant Professor

Ms. Kajal Gupta
Assistant Professor

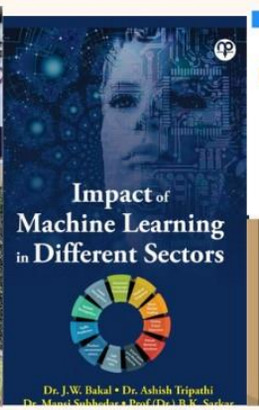
Mr. Saral Garg
Assistant Professor

Mr. Devesh Som
Assistant Professor

Mr. Nitesh
Assistant Professor

DEPARTMENT ACHIEVEMENTS

- **12 Patents** filed under the Department of CSE(DS)
- **5 Published Paper and Book Chapters** in Scopus/Springer/UGC Care
- **17 FDP/ Workshop** Attended by Faculty Members of CSE(DS)
- **2 MOU** Signed with Codetantra by the CSE(DS) Department
- 100% Certification of **Coursera & Big Data Technology from CDAC**
- **07 NPTEL Certifications**
- **+7 students** are 4star competitive coders on HackerRank
- **Data Quest Club** was established under Department CSE(DS)
- **PUSHPAK Club** was established under the RKG Group in association with CSE(DS) &(AIML)
- **21 Days** In Campus Training Program in association with NetCamp



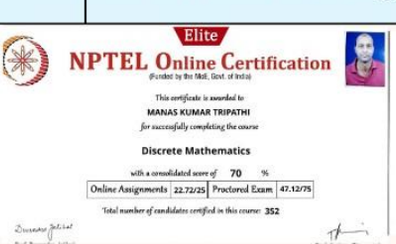
FACULTY PUBLICATIONS

PAPERS

S.NO.	AUTHOR'S NAME	PAPER TITLE	SCI/SCOPUS/UGC
1	Dr. Preeti Sharma	Face Detection using AI and ML algorithm	SCOPUS
2	Dr. Preeti Sharma	Impact on Mental Health Using Machine Learning	SCOPUS
3	Dr. Preeti Sharma	Deep Learning based Intrusion Detection System for Internet of Things Networks for Enhancing Security Against Cyber Attacks	SCOPUS
4	Pooja Chaudhary	Panoramic Study on Cloud Computing	SCOPUS (Q3)
5	Bhawna Goel	Panoramic Study on Cloud Computing	SCOPUS (Q3)

PATENTS

S.NO.	FACULTY NAME	PATENT TITLE	APPLICATION NUMBER
1	Dr. Preeti Sharma	IOT based gadgets empowered with Novel system and methods for Health monitoring	202311016325
2	Dr. Preeti Sharma	Broadcasting of message using social media in the scenario of emergency.	202311002492 A
3	Dr. Preeti Sharma	AI based mobile robot system.	202211070010
4	Dr. Preeti Sharma	A smart system for real-time monitoring of crop filelds using night vision and sonic sensors.	202211057696 A
5	Mr Manas Tripathi	IOT based gadgets empowered with Novel system and methods for Health monitoring	202311016325
6	Mr Manas Tripathi	IOT Enabled pressure cooker to control the temperature using cell phone	202211066066A
7	Ms. Pooja Chaudhary	Big Data Strategies for marketing revolution	202311007263
8	Ms. Pooja Chaudhary	A System and method for Hybrid Encryption	202211063331
9	Ms. Neha Paliwal	A System and method for Hybrid Encryption	202211063331
10	Ms. Bhawna Goel	A system for implementation and evaluation of a blockchain-based energy market and working method thereof	202311004391
11	Ms. Bhawna Goel	A System and method for Hybrid Encryption	202211063331
12	Ms. Bhawna Goel	A System for market intelligence and its effect on strategic and tactical decision making	202211053271



FACULTY PUBLICATIONS

NPTEL / CDAC/ MOOCS

S.NO.	FACULTY NAME	CERTIFICATE TITLE	PLATFORM
1	Dr. Preeti Sharma	Data Analysis using R Programming	Coursera
2	Dr. Preeti Sharma	Big Data Technology	CDAC
3	Mr. Manas Tripathi	Discrete Mathematics	NPTEL
4	Ms. Pooja Chaudhary	Data Analysis using R Programming	Coursera
5	Ms. Pooja Chaudhary	Big Data Technology	CDAC
6	Ms. Pooja Chaudhary	Python for Data Science	NPTEL
7	Ms. Neha Paliwal	Data Analysis using R Programming	Coursera
8	Bhawna Goel	Data Analysis using R Programming	Coursera
9	Bhawna Goel	Big Data Technology	CDAC
10	Bhawna Goel	Python for Data Science	NPTEL

FDP/ WORKSHOPS

S.NO.	FACULTY NAMES	TITLE	TOTAL FACULTY
1	Mr. Manas Tripathi	Use of Tools and Techniques in Research Based Project	01
2	Ms. Pooja Chaudhary Ms. Neha Paliwal Ms. Bhawna Goel	"NITTTR FDP" Planning Execution and Evaluvation of Project work	03
3	Mr. Manas Tripathi	30 Days Data science 2.0 Internship Program	01
4	Ms. Bhawna Goel	30 days masterclass on machine learning	01
5	Ms. Neha Paliwal Ms. Bhawna Goel	A review of machine learning in education	02
6	Ms. Pooja Chaudhary Ms. Bhawna Goel	Artificial Intelligence Machine Learning & Interdisciplinary approach for Natural language processing	02
7	Mr. ManaS Tripathi Ms. Pooja Chaudhary	Blue Ocean Strategy for Entrepreneurship Promotion	02
8	Ms. Pooja Chaudhary	Developing and measuring competencie " A way towards building dynamics organisations"	01
9	Ms. Neha Paliwal	Emerging Trends and applications of machine learning based artificial intelligence	01
10	Ms. Bhawna Goel	Faculty Development Programme on Machine Learning Using Python for Beginners	01
11	Ms. Pooja Chaudhary Ms. Divya Sahgal Ms. Bhawna Goel	Introduction to Embedded systems and robotics	03
12	Dr. Preeti Sharma Ms. Neha Paliwal	Python and Related Emerging Technologies	02
13	Ms. Neha Paliwal	NITTTR FDP on Modeling & Simulation using 'MATLAB'	01

FACULTY PUBLICATIONS

14	Mr. ManaS Tripathi Ms. Pooja Chaudhary Ms. Neha Paliwal Ms. Divya Sahgal Ms. Bhawna Goel	Networking and Cloud Computing based techniques	05
15	Mr.Manas Tripathi	Python Programing	01
16	Ms. Bhawna Goel	Systemetic literature review and bibliometric analysis	01
17	Ms. Pooja Chaudhary Ms. Neha Paliwal Ms. Bhawna Goel	Webinar on NEP-2020: Challenges and opportunities	03

STUDENT ACHIEVEMENT

CERTIFICATIONS/ INTERNSHIPS

S.NO.	YEAR	CERTIFICATE TITLE	STATUS
1	2nd Year	Supervised ML: Classification & Regression	100%
2	3rd Year	Data Analysis using R Programming	100%
3	2nd + 3rd Year	NPTEL SWAYAM	7 Counts
4	3rd	Big Data Technology	100%
5	3rd Year	Eleve8 Real Time Project Internship	12 Counts
6	2nd + 3rd Year	AICTE Cohort 4 & 5 Internship	+35 Counts

TECHNICAL ACHIEVEMENTS

S.NO.	YEAR	NAME	EVENT
1	3rd Year	Vishesh & Shrijal	Participated in Blind Coding
2	3rd Year	Tarandeep Singh Gujral	1st Position in Robotics as SRIJAN'22

SPORTS ACHIEVEMENTS

S.NO.	YEAR	NAME	EVENT
1	3rd + 2nd Year	Kartikey Tiwari, Aditya Singh, and Dev Chaudhary	2nd Position in Volleyball, KIET
2	3rd + 2nd Year	Sarthak Aggarwal, Shubham, Praduymn, and Jeraldin PJ	1st Position in Velorance at ESports, KIET
3	3rd Year	Aryan Bajpai	2nd Position in Football, AKTU Fest

STUDENT ACHIEVEMENT

LITERARY ACHIEVEMENTS

S.NO.	YEAR	NAME	EVENT
1	2nd Year	Vishal Tiwari	2nd Position in JAM Extemore
2	3rd Year	Anjali Mehta, Aayushi Vats, Shiv Narayan Gupta & Tanmay Gupta	2nd Position in Mercato'22 at Jaipuria College

Kusumgar Corpor-ate Pvt Ltd, A Textile based company of-fers Tarandeep Singh Gujral one week Data An-alytics Projects at their Surat & Vapi Plants. On that te-nure, He created 9+ Dashboards, out of that Sales Ageing Analysis, Purchase Track History, Stock Ageing Analysis are major projects.

STAR PERFORMERS

Shanvi Pachauri

Sejal Singh

Anjali Singh

5th SEMESTER

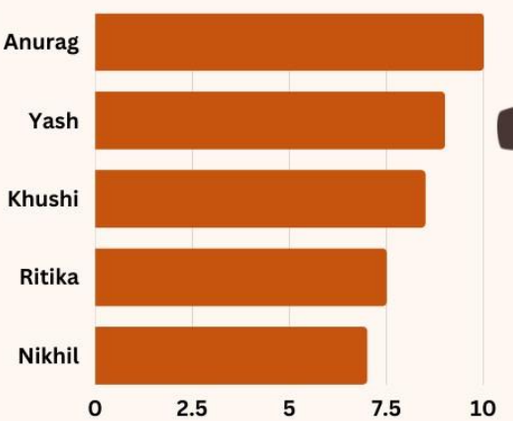
Vaishnavi

Prince Yadav

Anurag Yadav

Yash Tripathi

Khushi Goel



Ritika Nayak

Nikhil Kumar

3rd SEMESTER

STUDENTS TAKEN PLEDGE FOR SDG GOALS

DATA QUEST CLUB

Faculty Incharge:
Dr. Preeti Sharma
Coordinator:
Pooja Chaudhary

OBJECTIVE:

- Facilitate exposure to the domains of computer technology, data analytics, and machine learning in addition to the standard curriculum.
- The club's objective is to foster personality development through immersive activities and interactions within an industrial environment."

- The Data Quest Club at RKGIT College was founded in October 2022 with the objective of bridging the gap between the industry and academia. The club offers students an opportunity to both share and expand their ideas, facilitating interaction with the industry to broaden their horizons in the ever-evolving field of Data Science and its rapidly changing technology.

ACTIVITIES

Summary

DATE	ACTIVITY	PARTICIPANTS
20/Dec/2022	Analytical Presentation 1.0	58
24/Jan/2023	Analytical Presentation 2.0	70
29/Jun/2023	AI Bot Battle	68

Analytical Presentatio 1.0

The event 'ANALYTICAL PRESENTATION 1.0' was conducted on the 20th of December, specifically for third-year students. During this event, participants were assigned a complex problem that necessitated in-depth comprehension of the subject matter and the capacity to articulate their analysis with precision and clarity.

The event 'ANALYTICAL PRESENTATION 2.0' was orchestrated on the 24th of January, exclusively for second-year students. During this occasion, participants were tasked with addressing a complex problem that demanded a profound comprehension of the subject matter and the proficiency to articulate their insights with clarity and conciseness.

Analytical Presentation 2.0

AI Bot Battle

AI BOT BATTLE was organized on 29th June for all 2nd year Students where students showcase was AI Bots Strengths and Weaknesses.

TECHNICAL TRAININGS

WORKSHOP ON WEB APPLICATION USING PYTHON BY SOFTPRO

The students were given hands-on training on developing web applications to apply their learning and develop their own innovative solutions using Python and tools.

21 DAYS TRAINING PROGRAM ON NETWORKING,SOFTWARE &WEB DEVELOMENT BY NETCAMP

The event was designed to afford students the opportunity to acquire practical experience and exposure to real-world work environments through summer training. The session encompassed a range of topics, including programming languages, software development, web development, application development, and various data science tools.

Summary

DATE	TRAINING / SESSION	PARTICIPANTS
09 /Jan/2023	Web Application by Softpro	84
11 /Jan/2023	Training Program by Netcamp	77
06/Feb /2023	Session on Cyber Crime by U.P Police	50
31/mar/2023	Workshop on ML using Python by industry	46
08/may/2023	Workshop on AWS at MONGODB by Industry	63
26/may/2023	Knowledge Session on Regional Rail by RAPDIX Team	130

KNOWLEDGE SHARING SESSION

AWARENESS SESSION ON CYBER CRIME BY UTTAR PRADESH POLICE

"Furnished students with a comprehensive comprehension of the risks and perils linked to cybercrime. The presentation delved into subjects such as phishing, identity theft, ransomware, and hacking, affording students a comprehensive insight into the various facets of cybercrime. Furthermore, the experts deliberated on the significance of password management, software updates, and other precautionary measures that individuals can employ to fortify their defense against cybercrime."

WORKSHOPS

HANDS ON WORKSHOP ON CLOUD WITH AWS AT MONGODB BY CLOUD ENGINEER FROM INDUSTRY

"The principal aim of the event was to furnish students with practical experience and valuable insights into AWS cloud services. He introduced students to the foundational AWS services. Attendees were exposed to real-world use cases and case studies that exemplified the successful application of AWS services across diverse industries."

HANDS ON WORKSHOP ON MACHINE LEARNING USING PYTHON

The workshop provided students with a hands-on training on various aspects of innovation design using Python with Machine Learning tools. The workshop was designed to provide students with an in-depth understanding of machine learning using Python.

KNOWLEDGE SHAIRING SESSION BY REGIONAL RAIL BY RAPIDX TEAM

This session bestowed upon the students invaluable insights regarding the incorporation of technology within transportation operations. The event symbolized a noteworthy achievement in the pursuit of cultivating a group of data and technology experts capable of delivering substantial contributions to the improvement of efficiency and effectiveness within regional rail systems.

INDUSTRIAL VISITS

The CSE (DS) department of RKGIT, Ghaziabad organized an industrial visit at Coca Cola Happiness Factory Moon Beverage Ltd., Greater Noida(U.P.) for the second year students of CSE(DS). The students got information regarding various applications of modern AI technologies in the industries, how a single person would operate multiple machines, and various industrial experiences.

Conducted a Industrial visit at Appwars Technologies, Sector 2 Noida, Uttar Pradesh of around 20 Students. Learnings covered in visit: (i) Market Scope of Data Science in Industry 4.0 (ii) Technologies and applications of Data Science (iii) Knowledge about Internship Projects.

ASSOCIATE EVENTS

PUSHPAK - THE FLYING CLUB

Department of CSE(DS) is associated partner in all 3 events of PUSHPAK - The Flying Club Events:

- Pushpak Workshop (22/09/22)
- Pushpak Drone Event (14/10/2022)
- Pushpak Club Launching (22/12/2022)

Dr. Preeti Sharma (Faculty Convenor), Neha Paliwal (Faculty Coordinator), Tarandeep Singh Gujral (President), Poorva Tyagi (Designing Lead), Vishesh (Mgmt Lead), Uchit Parashar (Core Member) and Aman Gupta (Core Member) are the members in the club.

NATIONAL SCIENCE DAY

Emphasized the importance of science in addressing global challenges such as climate change, health, and energy. The event also fostered a culture of innovation and scientific inquiry among the students. The SAC team and Data Quest Club did a commendable job in organizing the event and making it a memorable experience for all attendees.

MONTAGE

आरकेजीआईटी ने साइबर अपराध पर विशेषज्ञ वार्ता का किया आयोजन

आयोजन

- फैकल्टी कोऑर्डिनेटर मानस त्रिपाठी व पूजा चौधरी ने इस कार्यक्रम का संचालन किया

अथाह संवाददाता

गाजियाबाद। आरकेजीआईटीके डाटा साइंस विभाग ने साइबर अपराध पर विशेषज्ञ वार्ता का आयोजन किया। इस बातचीत का महत्वपूर्ण उद्देश्य युवाओं को वर्तमान युग में साइबर सेल टीम ने वर्तमान युग में साइबर धोखाधड़ी के बारे में जागरूक करने के लिए सुझाव और बचाव के तरीके की जानकारी दी। और उन्होंने बताया, कि अपने आप को सुरक्षित करने के लिए हमें क्या करना चाहिए, क्या नहीं करना चाहिए। विभिन्न छात्रों ने साइबर अपराध के अपने अनुभव साझा किए। यह आयोजन युवाओं के लिए समय की मांग और बहुत ही ज्ञानवर्धक था। छात्रों को इससे काफी कुछ सीखने को मिला।

इस अवसर पर समूह

आरकेजीआईटी में साइबर अपराध पर वार्ता का आयोजन

गाजियाबाद (वि)। आरकेजीआईटी के डाटा साइंस विभाग ने साइबर अपराध पर विशेषज्ञ वार्ता का आयोजन किया। डाटा साइंस की एचओडी डॉ. प्रीति शर्मा ने कहा कि बदलती तकनीक के कारण हमारी सुरक्षा हमारे लिए चुनौतीपूर्ण है और इस तरह की बातचीत खुद को सुरक्षित रखने के लिए बहुत जरूरी है। साइबर अपराध साझा के एसआरएओ अनिल कुमार यादव और उनकी साइबर सेल टीम ने साइबर धोखाधड़ी के बारे में जागरूक करने के लिए सुझाव और बचाव के तरीकों की जानकारी दी। इस अवसर पर समूह समन्वयक डॉ. लक्ष्मण प्रसाद, कार्यकारी निदेशक डॉ. डीके चौहान, डीन अकादमिक डॉ. आरके यादव, डीन एचजी. गर्ग, डीन डॉ. पुनीत चंद्र श्रीवास्तव, डीन डॉ. समेंद्र सिंह आदि उपस्थित रहे। फैकल्टी कोऑर्डिनेटर मानस त्रिपाठी व पूजा चौधरी ने कार्यक्रम का संचालन किया।

डेटा साइंस में बनाना चाहते हैं करियर

ये है एलिजबिलिटी

STUDENT CORNER

IMAGE CAPTIONISTS

Wherever life takes us, these college memories and friendships will forever be our anchor

Dhruv Attri 4th Year

Chasing sunsets in the heart of the city's hustle, finding beauty in the midst of the metro's chaos.

Vanshika Jindal 4th Year

Wish I hadn't lost myself
Being crazy as early as early as I was,
Wish I had the wisdom to recognize
What's right at that time.
Wish I could see any hope but there
Was not any rope.
The time people say was there best
I have it to worsen myself.
Wish I had remained what I was
And not had changed myself to
Suit the box I inside was.

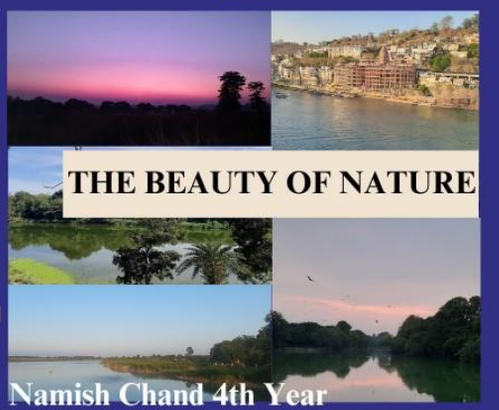
I was sitting and realizing that
What I changed myself because
Of the many people around myself.
Emotions, thoughts are quite cool at
That time

Being positive is the best way you can
Live, spreading positivity is a thing
We all should never leave.
Today I do it to enjoy the
essence, just by being true to my
sense.

POET

आज कन्धा बहुत दर्द कर रहा था,
जीवन में धीमा भी हो गया हूँ।
तो इसकी वजह मैंने पापा से जाननी चाही,
तो उनकी आँखों ने बताया कि बेटे,
" यह उन कंधों का दर्द नहीं , बल्कि उस भार का दर्द है।
जो हमने तुम्हारे कंधों पर उम्मीदों के भार को हटाकर ,
उन पर भरोसे के भार को रखा है।"

Ankit Gupta 4th Year

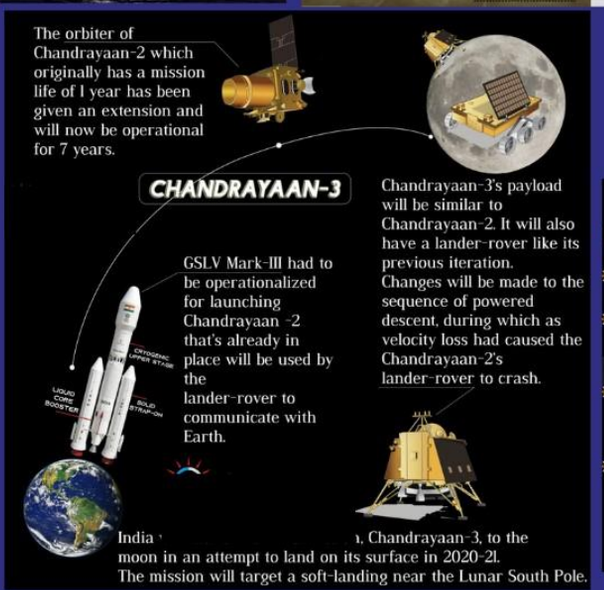


Namish Chand 4th Year

WRITER

Hariom Gupta 4th Year

SKETCHER

Deepak Gupta 4th year

CURRENT AFFAIR