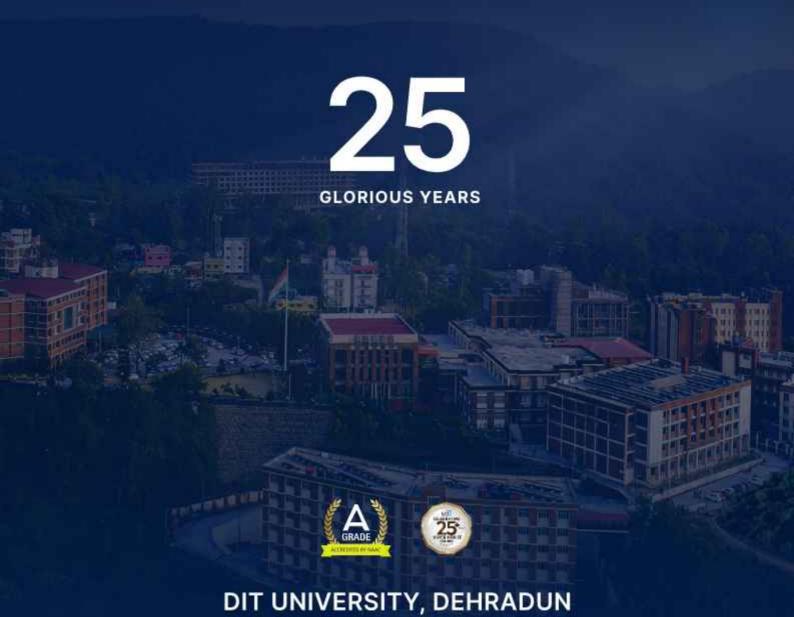


# **ANNUAL REPORT**

2023-24



Mussoorie-Diversion Road, Village Makkawala, Dehradun, Uttarakhand-248009, India.



हिम शिखरों के मध्य बसा छोटा सा कुल है अपना प्रकृति के पावन आँचल में अंगड़ाई लेता इक सपना जहाँ ज्ञान वृक्ष की छाया में होता अंतर्ज्ञान है उस पुण्यभूमि का नाम डी आई टी संस्थान है

सरस्वती माँ का वंदन जहाँ नित होता आया है जिसके छात्रों ने समाजहित हेतु संकल्प उठाया है देश हित कुछ करने का सपना भरता जहाँ उड़ान है उस कर्मभूमि का नाम डी आई टी संस्थान है

गुरु शिष्य की परम्परा को जहाँ निभाया जाता है हर जातिधर्म के भेदभाव को जहाँ भुलाया जाता है जिस कुल के प्रत्येक निवासी को मिलता उचित सम्मान है उस धर्मभूमि का नाम डी आई टी संस्थान है

वस्थैव कुटुंबकम का मूल मंत्र जहाँ सिखाया जाता है कर्तव्यों और मानव मूल्यों का पाठ पढ़ाया जाता है सर्वे भवन्तु सुखिनः जहाँ होता गुंजायमान है उस ज्ञानभूमि का नाम डी आई टी संस्थान है

विश्व स्तर पर उच्च शिक्षा का परचम लहराएँगे अनुसंधानों के बल पर स्वर्णिम भविष्य ले आएँगे जो वैश्विक स्तर पर श्रेष्ठ गुणवत्ता का देता सदा प्रमाण है उस अध्ययनभूमि का नाम डी आई टी संस्थान है

# Message from

## President



Shri. Anuj Aggarwal

As we commemorate 25 years of academic excellence and innovation, DIT University shines as a beacon of progress and resilience in a rapidly evolving world, shaped by the forces of technology, globalization, and societal transformation. From humble beginnings, we have grown into a thriving university offering 41 UG and 15 PG Programs and Ph.D. Program, preparing students not only with knowledge but with the skills, mindset, and resilience needed to excel in the world.

Our journey is a testament to the unwavering dedication of our faculty, staff, students, and alumni, whose collective efforts have elevated DIT University to the vanguard of higher education, enabling it to gain NAAC 'A' Accreditation. Our commitment to sustainability and academic rigor is reflected in our 77th global ranking in the SDG 6 in Times Higher Education (THE) University Impact Rankings 2024. We also secured 81st place in the NIRF 2024 rankings for Pharmacy, proudly standing as the top private institution in Uttarakhand in this field.

At DIT University, education extends far beyond the classroom. We are committed to nurturing not only academic success but also a spirit of exploration, professionalism, social responsibility, and patriotism. Through a rich blend of academic, sports, cultural, and community activities, including NSS and NCC, we ensure that our students emerge as well-rounded individuals ready to make a global impact. With over 19,000 alumni worldwide, our graduates are shaping industries, driving innovation, and contributing to resilient, sustainable communities across the globe. The Annual Report 2023-24 captures these milestones, serving as both a reflection of our achievements and a catalyst for future growth. These accolades underscore our dedication to fostering excellence in academics, research and innovation.

In closing, I want to extend my deepest appreciation to all those who have been a part of this remarkable journey.

#### JAI HIND!



Together, we will continue to empower the next generation of leaders, equipped with the knowledge, resilience, and vision to shape a brighter, more sustainable future for all.

# Message from

# **Principal Advisor**



Shri, N. Ravi Shanker

I am happy to note the strides made by DIT University, achieving several awards and accolades. My heartfelt congratulations to every student, faculty member, staff, parent, and alumnus on the same.

DIT University has significantly enhanced its research capabilities. With the publication of over 300 research papers in esteemed international journals and the grant of 20 patents to it in the year 2023-24; we are moving in the right direction. We need to focus our attention on R & D and scale up Research work. DIT University provides all round education in the true sense of the word. Our Alumni have brought us laurels. They are our Ambassadors.

JAI HIND!



We need to continue on this path of progress in keeping with our motto IMAGINE, ASPIRE, ACHIEVE. We need to uphold the vision of our Founder to attain excellence.

# Message from

## Vice Chancellor



Prof. G. Raghurama

DIT University aspires to be a beacon of knowledge, embodying the ideals of a forward-thinking, modern institution. Our illustrious 25-year journey, which began with just 180 students has grown into a thriving university with over 5,000 students, reaffirming our belief in education as a vital force in shaping communities that are strong, resilient, and enduring. As we reflect on the past year, we do so with immense pride. DIT University has once again demonstrated its exceptional ability to embrace the latest trends, paving the way for our future. In 2023, DIT University received NAAC Accreditation with 'A' Grade, which is a recognition of our academic achievements & standing. Notable among our recent initiatives are the establishment of Uttarakhand's first Drone Technology Lab and a dedicated School for Design.

Additionally, we have launched the Robotics and Automation Engineering Program, along with a significant milestone in the form of our advanced academic portal, iNxt, and the placement facilitation platform, POD. Our efforts have been recognized on both national and international levels, as evident by our 77th rank SDG-6 global ranking in the Times Higher Education (THE) University Impact Rankings 2024. Furthermore, we were ranked 81st in the Pharmacy category by NIRF 2024, securing the top position among private pharmacy institutions in Uttarakhand. At our 7th Convocation, we proudly conferred 1263 degrees to students across various undergraduate and postgraduate disciplines.

We extend our deepest gratitude to our Honorable President, Shri Anuj Aggarwal, our Honorable Adviser, Shri Ravi Shanker, and the esteemed members of the Board of Governors and Management for their unwavering support and guidance. I thank the faculty, staff & students for their contribution to the growth of the University & congratulate them on their achievements.

#### JAI HIND!



The university remains steadfast in its mission to cultivate culturally aware and ethically driven technocrats and professionals who will contribute meaningfully to the sustainable and equitable growth of society.

# **Preface**

Celebrating over 25 years of academic distinction, DIT University has evolved from its inception in 1998 as DIT College with 180 students into a multidisciplinary institution, now offering 74 programmes and 16 doctoral courses across Engineering, Technology, Physical Sciences, Liberal Arts, Pharmacy, Architecture, Management, Nursing, and Healthcare Professions, serving over 5,000 students.

This year marked significant advancements, including the establishment of Uttarakhand's first Drone Technology Lab, the introduction of a Robotics and Automation Engineering programme, and the creation of cutting-edge academic platforms like iNxt and POD. The College of Nursing and Healthcare Professions commenced operations in their newly constructed facilities, while the School of Design was officially launched. Our students have excelled, with alumnus Deepesh Singh Khera securing 86th rank in UPSC 2023 and Ankush Jha representing India at Asia World MUN 2024. The highest placement package reached 44 LPA, and our NCC cadets represented the University at the national level.

We extend our deepest gratitude to the Chairperson and the members of the University's statutory bodies for their unwavering support and guidance. We also wish to acknowledge the contributions of all the faculty members, staff and students in the preparation of this report. Our sincere thanks to all who have supported and contributed to this achievement.

#### JAI HIND!



Mr. Bipin Kumar, Mr. Amit, Mr. Reshab, Dr. Nisha, Dr. Sakshi Semwal, Dr. Ekta Singh, Dr. Shriya Goyal, Ms. Isha Vashishtha , Ms. Ekta Soni, Ms. Debasmita Dey, Md Aziz Howlader, Ms. Muskan Saini, Ms. Shalani





Arise! Awake! And stop not until the goal is reached.

-Swami Vivekananda

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#### Overview

# 25 Glorious Year



Nestled in the scenic valley of Dehradun, DIT University has grown from its modest beginnings in 1998 as the Dehradun Institute of Technology into a leading multidisciplinary University. Established by The Unison Group, DIT began with a focus on undergraduate engineering programs, quickly earning a reputation for its rigorous academic standards and emphasis on practical learning. In 2013, the institution was granted university status by the Government of Uttarakhand, marking a pivotal moment in its evolution. This transition allowed DIT University to broaden its academic offerings, expanding into fields such as Architecture, Science & Technology, Pharmacy, Management, Liberal Arts, Design, and Healthcare. Today, the university provides a diverse range of undergraduate, postgraduate, and doctoral programs, with a curriculum designed to keep pace with global trends and industry demands.

DIT University's state-of-the-art facilities, including advanced labs, extensive libraries, and Centers of Excellence, reflect its commitment to academic rigor and innovation. As the university looks ahead, it is focused on future-ready programs in emerging fields like artificial intelligence, data science, and sustainable development, ensuring that it remains at the forefront of higher education, both nationally and globally.

# **DIT College to DIT University**



#### 1998 DIT College

- . Student Enrollment: 180
- · Faculty Members: 18
- · Mechanical Engineering
- Industrial Production
- · Computer Science
- · Information Technology
- . Electronics & Communication Engineering
- · Electrical Engineering





#### 2013 Multi-Disciplinary University

- Engineering
- · Computer Science, IT
- Pharmacy
- · Architecture, Planning & Design
- · Physical Sciences
- · Liberal Arts
- Management





#### 2023 OIT University 2023

- · Student Enrollment: Over 5,000
- . Faculty Members: More than 250
- · Programs Offered:
  - Undergraduate 41
  - Postgraduate 15
- Doctorate
- . Centre of Excellence: 7
- · DIT College of Healthcare Professions
- · DIT College of Nursing



# **Leaders Who Contributed**

# Dehradun Institute of Technology (1998-2012)

# Principals Dr. Purshottama Dr. Krishna Kumar Directors Prof. A K Raja Prof. Sharma Prof. R C Chauhan Prof Krishan Kumar

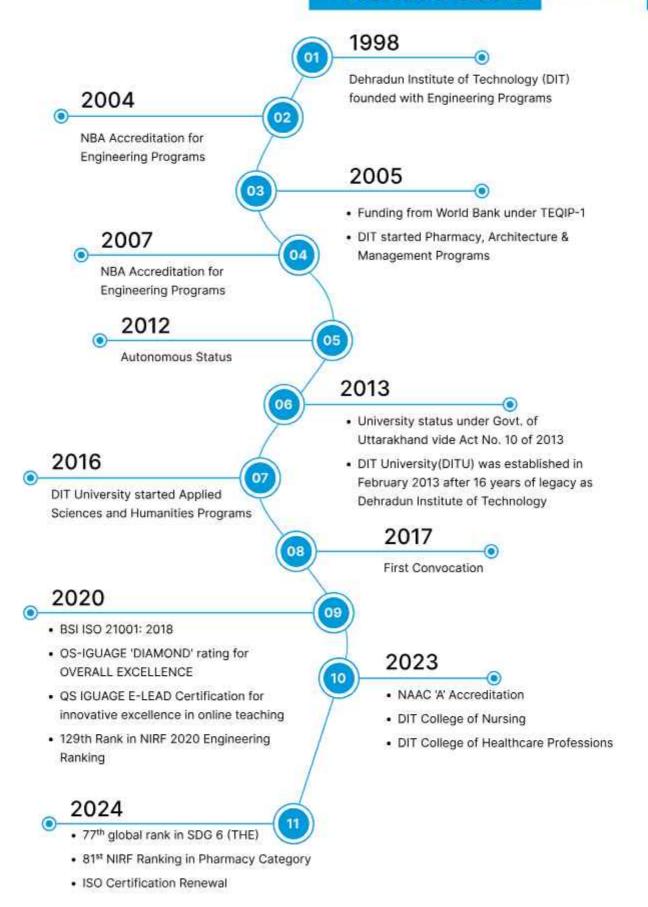
# **DIT University Dehradun (2013-Present)**

# Chancellors Dr. R.C. Goyal Shri. N. Ravi Shanker Vice Chancellors Dr. Krishna Kumar Dr. Kuldeep Kumar Raina Prof. G. Raghurama Shri. N. Ravi Shanker

# Journey of

25

# **Glorious Years**



# 25 Journey of Glorious Years Awards & Achievements

#### DIT University ranked 81st in the Pharmacy Category of the NIRF 2024.

The University secured 81st position in the pharmacy category, outperforming 467 other institutions that participated in the ranking process. This achievement is particularly noteworthy as DIT University has also been recognized as the No. 1 private institution in Uttarakhand within the pharmacy category.



#### Times Higher Education (THE) -University Impact Ranking 2024: SDG 77th rank

Times Higher Education (THE) -DIT University attained 77th place under SDG 6 - (Water & Sustainability)



#### Outlook iCare Ranking

Ranked 1st among the top private engineering Institutes in Uttarakhand and Ranked 23rd in Pan India by the Outlook iCare Ranking 2024. Ranked 1st among the top private architecture colleges in Uttarakhand and 14th in Pan India by the Outlook iCare Ranking 2024.

Outlook

#### Ranked 1st among the top private architecture colleges in Uttarakhand a Ranked 19th in Pan India by The Week (Hansa Survey) Rankings 2024.

DIT has achieved a remarkable feat in the The Week (Hansa Survey) Rankings 2024. It ranked 1st among the top private architecture colleges in Uttarakhand and ranked 19th in Pan India by The Week (Hansa Survey) Rankings 2024.



#### NAAC 'A' Accreditation

DIT achieved a significant milestone by securing an "A" grade from the National Assessment and Accreditation Council (NAAC). This prestigious accreditation is a testament to the university's commitment to academic excellence, research innovation, and overall institutional quality.



#### Institutional Innovation Council (IIC) of DIT University awarded 4 Star rating

DIT University's Institutional Innovation Council (IIC) was awarded a 4-star rating by the Innovation Cell of the Ministry of Education and AICTE, Government of India for the year 2020-21. This recognition highlighted DIT University's commitment to fostering a culture of innovation and creativity among its students and faculty.



# Journey of Glorious Years

# **Awards & Achievements**

25

#### DIT University bags NIRF 2020 Engineering Ranking

DIT University, Dehradun successfully positioned itself in the League of Top Engineering Universities across India under the 100 - 150 Band. We were glad to receive 129th rank announced by NIRF 2020 Engineering Ranking with a score of 34.93. MHRD NIRF 2020 carried out a thorough and rigorous assessment, and finally conferred DIT University with its ranking for constantly displaying exceptional efforts towards developing highly - skilled engineers in the country.



# DIT University ranked 22nd by Competition Success Review: June 2019

DIT University achieved a notable ranking in the Competition Success Review for June 2019. The university was ranked 22nd among Top Engineering Colleges of Eminence in India and 21st among Top Private Engineering Colleges in Uttarakhand State.



# DIT University is the First ISO 21001 : 2018 Certified University in India.

While DIT University is always persistent towards raising its educational bars, it has been BSI ISO 21001:2018 certified for displaying exceptional operational excellence. The accolade is a clear testament of our expertise in provision of Higher and Technical Education including Research, through Quality Teaching, Facilitation and Administrative Support of learning for all their offered courses.



#### DIT University is rated 'DIAMOND' by OS I-GAUGE

As one of the high-rated university in India, DIT University has been excelling on the field of education for more than 22 years, DIT is proud to receive OS I-GAUGE 'DIAMOND' rating for its Overall Excellence as a top-notch University and has become the 2nd university in India to be awarded with Diamond rating for its 'Faculty Quality'. OS I-GAUGE is a brand incorporated in India.



#### DIT University is Certified for its E- Learning Excellence

DIT University achieved for its E- Learning Excellence - QS I-GAUGE E- LEAD Certificate QS, the global rankings and rating agency, through its India arm, QS IGAUGE awarded DIT University for our preparedness to educate students on line. DIT University is the first in Uttarakhand and amongst 12 other institutions at national level to be awarded with QS IGAUGE E-LEAD (E- Learning Excellence for Academic Digitization) certification for displaying expertise in leveraging world-class practices to help students strengthen their knowledge base.



# 25 Journey of Glorious Years Awards & Achievements

#### Conferred "BEST PRIVATE ENGINEERING COLLEGE - 2018"

DIT University was honored with the prestigious "BEST PRIVATE ENGINEERING COLLEGE - 2018" award at the Uttarakhand Educator's Summit 2018. This recognition underscores the university's excellence in engineering education and its commitment to providing quality learning experiences for its students.



#### Ranked 35th in "All India Top Private Engineering Institute Rankings" - Times of India Engineering Survey - May 2018

DIT University has achieved a commendable position in the Times of India Engineering Survey - May 2018. The university was ranked 35th among All India Top Private Engineering Institutes. This ranking highlights DIT University's strong academic reputation, quality of education, and overall performance in the field of engineering.



#### NPTEL Recognition

DIT University has been acknowledged by NPTEL (National Programme on Technology Enhanced Learning) as a "Valuable NEPTEL Local Chapter with a rating of "A" for the year 2017. NPTEL recognition offered students access to high-quality online courses, enhanced learning opportunities, improved employability, a stronger academic foundation, and a supportive learning environment. These benefits contributed to the overall development and success of DIT University's students.



#### Oracle Recognition

DIT University has been recognized by Oracle for its excellence in building deep skills in the areas of Database Administration, Business Intelligence and Application Development. This recognition was awarded under Oracle's Workforce Development Program.

**ORACLE** 

# Journey of Glorious Years



# Significant Accreditations



NAAC A Accreditation



NIRF Ranking



OS IGAUGE E-LEAD



Pharmacy Council of India



Council of Architecture



Association of Indian University



UGC Recognized



IAU



**GHRDC** 



I.GAUGE



**ARIIA 2021** 



ISO Certified



Outlook ICARE Ranking



Times Engineering



Careers 360

# DITU Overview



Devotion to duty is the highest form of worship of God.

-Swami Vivekananda

# **Core Value**

#### Vision



To be a world-class professional University, constantly striving for excellence in education by high quality teaching in synchronization with industry needs. To be driven by the spirit of ground-breaking research and entrepreneurship. To instill in each student qualities of mind and character necessary for good citizenship and eminent leadership.

#### Mission



Our mission is to provide outstanding education, advance knowledge and benefit the world.

#### Core Values

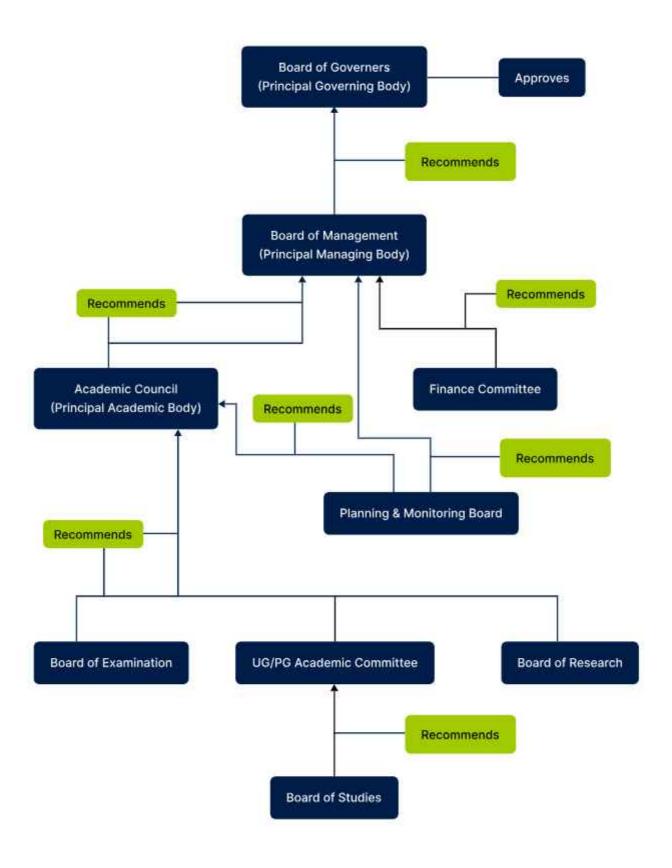
- 1. Academic Excellence and Integrity.
- 2. Integration of Human Values, Ethics and Professional Etiquettes with teaching.
- 3. Outstanding Teaching and Service.
- 4. Encourage quest for life-long learning.
- 5. Scholarly Research and Professional Leadership.
- 6. Inculcating Global Perspective in Attitude.
- 7. Appreciation of Intellectual Excellence and Creativity.

#### Our Motto



# Imagine, Aspire, Achieve

# **Statutory Bodies**



# **Board of Governors**

#### Chairman

Shri. Anuj Aggarwal

President, DIT University

Educationist

#### Co-Chairman

Shri. Amit Aggarwal

Member Secretary, Unison Education Foundation

Educationist

#### Vice Chairman

Shri. N. Ravi Shanker

Chancellor, DIT University

Academician

## **Member Secretary**

Prof. G. Raghurama

Vice Chancellor, DIT University

Academician

#### Ex-Officio Member

**Principal Secretary** 

Secretary, Higher Education Department, Govt. of Uttarakhand

IAS Officer

#### Member

Prof. Priyadarsan Patra

Pro Vice Chancellor, DIT University

Academician

Dr. Chandra Shekhar

Former Director, CEERI (CSIR Lab) Pilani, Rajasthan

Academician

Dr. Ratna Prakash

Prof. & Principal, Pal College of Nursing & Medical Sciences, Haldwani

Academician

Dr. S P Gupta

Ex-Vice Chancellor, COER University, Roorkee, Uttarakhand

Academician

Dr. L. K. Maheshwari

Advisor to Chancellor & Former Vice Chancellor, BITS Pilani

Academician

# **Board of Governors**

Mr. Rajeev Gupta Educationist
President, IMS Noida

Dr. Sandeep Sancheti Academician
Provost (Vice Chancellor), Marwadi University, Rajkot, Gujarat

Mr. Anupam Saronwala Angel Investor
Advisor, Mentor & Angel Investor

(Former Program Director, IBM Research)

Dr. Debashis Dutta

Executive Vice President | Strategic Initiative, Reliance Corporate

Lt. Gen. (Retd.) Harinder Singh

PVSM, AVSM, YSM, SM, VSM, Former Commandant IMA,

Defence Personnal

Prof. R. C. Dangal Academician
Professor, Department of Commerce,

Member Invitee

HNB Garhwal Central University

Dr. Samuel Ernest
Registrar, DIT University

Dr. R C Goel

Academician

Dr. R C Goel
Advisor General to the Chairman BoG, DIT University

# **Board of Management**

# Chairman

Prof. G. Raghurama	Vice Chancellor, DIT University

# Member

Prof. Priyadarsan Patra	Pro Vice Chancellor, DIT University
Principal Secretary, Higher Education, Govt. of Uttarakhand	Ex- Officio
Prof. Anjali Krishan Sharma	Director, SOAPD
Dr. S.S. Mantha	Former Chairman, AICTE
Dr. Prakash Chauhan	Director, National Remote
	Sensing Centre, ISRO
Prof. Manjula Sritharan	Professor, University of
	Hyderabad
Prof. B.K. Mishra	Director, IIT Goa
Mr. Mukesh Goyal	Plant Head, Hero Motocorp Ltd.
Dr. Prakash Tiwari	Dean A&C & Professor, SOLAM
Dr. Havagiray Chitme	Professor, SOPPHI
Dr. Naresh Mohan Chadha.	Professor & Dean, SOPS
Prof. Debopam Acharya	Dean, SOC

# Non-Member Secretary

Dr. Samuel Ernest	Registrar

# **Senior Management**



Shri Anuj Aggarwal President



Shri. N Ravi Shanker Principal Advisor



Raghurama Vice Chancellor



Prof. Priyadarsan Patra Pro Vice Chancellor



Prof. J. Samuel Ernest Ratnakumar Registrar



Prof, Prakash Tiwari Dean, Accreditation & Contemporisation



Prof, Hemraj Verma Dean, Academic Affairs



Prof. Debashish Chowdhury Dean, Research & Consultancy



Mohan

Dean, Student Welfare



Prof, Naveen Singhal Dean, Alumni Relation & Chief Proctor



Prof, Hemraj Saini Dean, Faculty Affairs



Prof. Anjali Krishan Sharma Director, SoAP



Prof. Debopam Acharya Dean, SoC



Prof. Binay Kr. Singh Dean, SoET



Prof. Naresh Mohan Chadha Dean, SoPs



Prof. Ekta Singh Dean, SoD



Prof. G.T. Kulkarni Dean, SoPPHI



Prof. K. Helen Rani Principal, DIT College of Nursing



Raza Rizvi

Dean, DIT College of
Healthcare Professions



Prof. Y.K. Tyagi Controller of Examination



Dr. Praveen Saiwal Dean, Career Development & Career Services Cell



Mr. Sanjiv K. Sain Chief Librarian

Annual Report 2023-24

# Overview

#### Schools & Department

- School of Architecture & Planning
- School of Computing
- School of Design
- School of Engineering & Technology
- School of Liberal Arts & Management
- School of Physical Sciences
- School of Pharmaceutical & Populations Health Informatics
- DIT College of Healthcare Professions
- DIT College of Nursing



#### Center of Excellence

- Internet of Things
- Artificial Intelligence and Robotics Lab
- Industrial Automation and Robotics (IAR)
- Materials and Nano Engineering Research
- Land, Air and Water (Environmental Stability)
- Advances Functional Smart Materials Lab
- Drone Technology

#### **Central Facilities**

- Veda The Central Library
- Computing Facilities
- Teaching Learning Centre (TLC)
- NPTEL

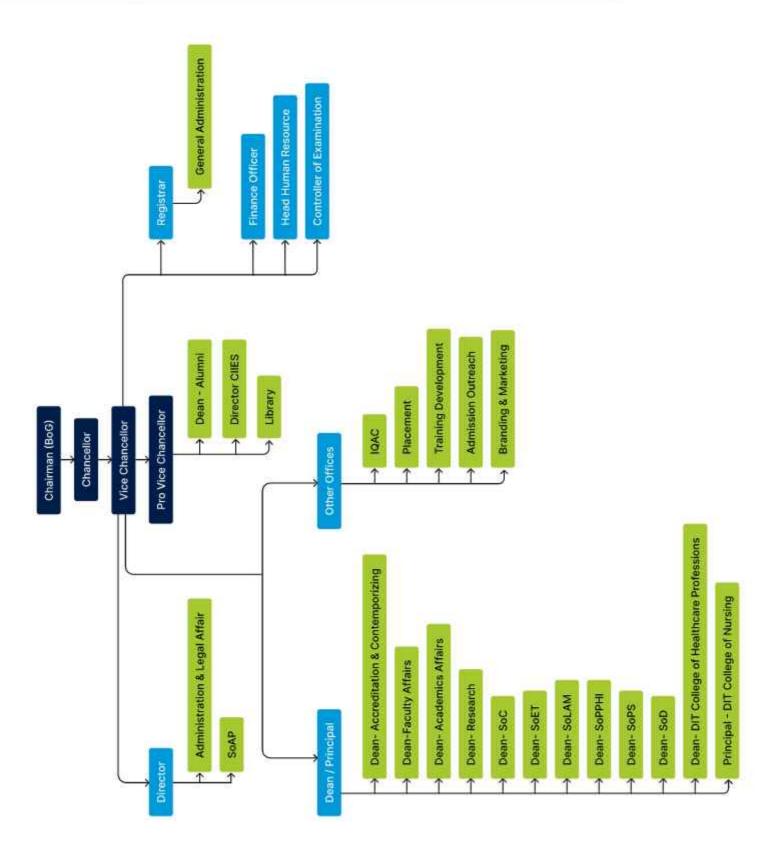
#### Labs

- Architecture
- Civil Engineering
- Mechanical Engineering
- Petroleum Engineering
- Electrical and Electronics & Communication Engineering
- Pharmacy
- Humanities
- Physical Sciences



- Technology Business Incubator (TBI)
- Innovation & Entrepreneurship Students Club
- Institution Innovation Council
- Intellectual Property Rights Cell

# **Organization Structure - DIT University**



# Highlights 2023-24





#### iNxt:New ERP System

Keka:New HR Portal

DIT University is growing and evolving with new tools and technology, it has implemented the new ERP system "iNXt"

DIT ranked 17th among Indian Institutions in the Times Higher Education (THE) University Impact Rankings 2024

20th

12th

ath

for SDG 3 (Good health & Wellbeing) for SDG 7 (Affordable & Clean Energy) for SDG 6 (Clean Water & Sanitation)

#### New Schools & Colleges Established







3574

Scholarships Awarded

44 LPA

Highest Package Average Package : 5.16 LPA Company offering the Highest

Package: Harness

80

86th Rank

Active MoUs DIT Alumnus Deepesh Singh Khera secured 86" rank in UPSC 2023



POD.ai Our Online Technical Platform

To streamline the placement & training processes Ankush Jha in Asia World MUN

Ankush Jha represented India on the global stage in Asia World MUN 2024

44

#### NCC represents 11UK & 29UK

The Army Wing Cadets of NCC at DITU represents the 11UK & 29UK 80

Non-Teaching Teaching

Events conducted for Capacity Building

#### 1263

Total Graduates

#### 81th

Rank in Pharmacy by NIRF 2024

#### 267

Academic Employee

#### 239

Administrative Employee

#### 20

Patent Granted

#### 46

Patents Published

## 300

Research Publications

#### 150

Events & Activities Conducted

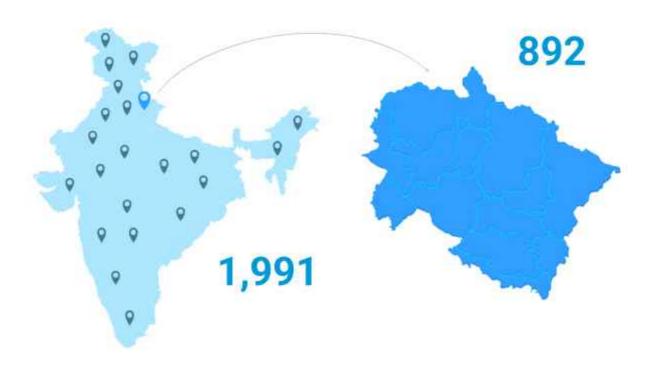
#### 19000+

Alumni connected with us on Alma Shine

# **Enrollment**

# **Statistics**

# **Entering Cohort**



In 2023-24, 1,991 students enrolled with DIT University, under various Under Graduate, Post Graduate and Ph.D Programmes, from all over India, out of which 892 are from Uttarakhand.

1661 Enrollment
Under Graduate programs

287 Enrollment
Post Graduate Programs

43 Enrollment
Ph.D Programs

# **Enrollment** I

# **Statistics**

# **Entering Cohort**

A School of rchitecture & Planning	41 Enrollment UK - 22   AI - 19
School of	1321 Enrollment
Omputing UK	( - 565   AI - 717   SAARC - 37   NRI - 2
School of	185 Enrollment
Design	UK - 94   AI - 91
School of	77 Enrollment
nginering & Technology	UK - 28   AI - 44   SAARC - 5
School of	170 Enrollment
L iberal Arts & Management	UK - 93   AI-75   SAARC - 2
C School of	35 Enrollment
hysical Sciences	UK - 13   AI - 21   SAARC - 1
Chool of	98 Enrollment
harmaceutical & Population Health Informa	tics UK - 53   AI - 40   SAARC - 5
School of	57 Enrollment
ursing	UK - 22   AI - 34   SAARC - 1
School of	7 Enrollment
ealthcare Professions	UK - 2   AI-4   SAARC - 1

# **Scholarship**

# **Statistics**

In order to facilitate scholarship among students towards their academic excellence, scholarships in different categories are awarded by DIT University to facilitate meritorious and deserving students from varied backgrounds.

2000

Uttarakhand / other Himalayan State Scholarship 73

Means Scholarship

1013

Merit Based Scholarship

242

Shri Naveen Agarwal Ji Scholarship for Girl Students

161

Scholarship for Children of Defence Personnel 49

Financial Assistant for Sibling(s)

27

Scholarship for Children of Single Mother 05

Scholarship Policy for the Children of Employees of the DIT University

03

Scholarship on the Basis of Performance in Sports 01

Scholarship for Differently Abled Student

# **Graduation Statistics I**

# **School Wise**

A School of rchitecture & Planning	40 Graduated Male: 19   Female: 21
C School of omputing	682 Graduated Male: 535   Female: 147
D School of esign	52 Graduated Male: 34   Female : 18
E School of nginering & Technology	174 Graduated Male: 147   Female: 27
School of iberal Arts & Management	118 Graduated Male: 40   Female: 78
P School of hysical Sciences	66 Graduated Male: 29   Female: 37
P School of harmaceutical & Population Health Informatics	131 Graduated Male: 81   Female: 50

# **New Programs & Initiatives**

Establishment of First Drone Technology Lab As "Centre of Excellence in Drone Technology" at DIT University









# New Programs & Initiatives

# **DIT College of Nursing**

DIT University establishes new DIT College of Nursing's state-of-the-art building (175,215 sq.ft.) with advanced facilities. B.Sc. Nursing Program was launched in 2023-24. The building also houses DIT College of Healthcare Professions (in the 3rd & 4th floors) and School of Pharmaceutical & Population Health Informatics (in the 5th-7th floors).



## **Nursing Lab**

Nursing Foundation Lab virtually creates a hospital setup. It aims at helping the students to acquire knowledge, understanding and skills in technique of nursing practice.

# Maternal & Child Health Nursing Lab

The MCH Lab is equipped with maternity examination model, gynecological examination model, delivery model, charts & other equipment. Child Health Lab is having models, charts & various play therapy material.



# I New Programs & Initiatives

# **DIT College of Nursing**

## Anatomy & Physiology Lab

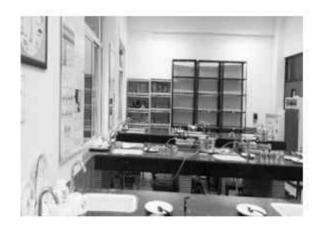




The Anatomy & Physiology Lab introduces the students to the structure and function of the human body. It deals with the study of cells, tissues and membranes that make up our bodies and explains the functioning of the major systems and how they help us develop.

#### **Nutrition Lab**





The purpose of the Nutrition Lab is to provide students the basic overview of culinary food principles and preparation of different types of patient's food like, Diabetic Diet, Kidney Failure Diet, Obesity Diet, etc.

# New Programs & Initiatives

# School of Design

The School of Design was established as an independent institution in 2024, having previously been a part of the School of Architecture, Planning, and Design. This change was driven by the increasing demand to explore new frontiers in the design industry across a wide range of fields. The school comprises of disciplines User Experience (UX), Visual Graphics and Animation (VGA), and Interior Design (ID) departments and has been at the forefront of producing skilled professionals.



# Model Making Workshop





The college recently hosted a captivating model-making workshop, where students from various disciplines gathered to unleash their creativity. Armed with a plethora of materials and guided by skilled mentors, participants delved into the art of crafting intricate models. The workshop provided a platform for students to experiment with different techniques, from traditional paper crafting to advanced 3D modelling. The event not only honed their technical skills but also fostered a sense of teamwork and innovation, culminating in a stunning display of imaginative creations

# I New Programs & Initiatives

# **School of Design**

# Studio





In the School of Design's, our students are exposed to hands-on projects, utilizing advanced tools and techniques to bring their innovative ideas to life. The Studio is well-equipped to facilitate the students excel in the ever-evolving design landscape

# **Computer Lab**



Cutting-edge technology and sleek workstations create an environment where innovation takes flight.

# Library



A wealth of resources and a serene atmosphere provide the foundation for research and inspiration. Students transform bold ideas into tangible projects, honing practical skills for careers.

# **New Programs & Initiatives**

### Online Placement Portal

#### POD

This year we have introduced our online technical platform i.e. POD.ai.

This innovative system is a significant step in the process of streamlining the Placement & Training processes, enhancing efficiency and user experience for both students and university stakeholders.



### Online Academic Portal

#### DIT iNxt

DIT University is evolving its higher education approach with its new ERP system, iNxt, launched in January 2024. The system has successfully implemented key modules for students, faculty, and administration.



- 1. Complete Admission Module,
- 2. Academic & Examination Module.
- 3. Student Feedback Module.

### Online HR Portal

#### Keka HR

In the past one year, the HR team of DITU has launched several initiative and has revamped many existing policies and processes. The biggest of them is launching a new HRMS tool "Keka". This tool enables automating all HR processes with complete transparency and user friendliness. It's a one-stop tool to govern all HR processes through either the app or the portal.



# **Teaching Learning Centre**

# TLC

### About TLC

The TLC at DIT University, established in 2021, aims to improve teaching by fostering critical thinking, using technology, and aiding faculty in curriculum development and assessment. It envisions becoming a leading center in higher education, promoting excellence through research and technology. Its objectives include providing resources, developing digital content, evaluating teaching, and conducting workshops for faculty, students, and staff.

The TLC envisions developing and promoting a responsive and contemporary teaching-learning system for higher education communities and contributing to excellence in teaching and learning as an innovative and well-resourceful center with committed and professional staff through reflective research-based practice and the optimal use of technology.



### TLC Members

Chairperson-TLC Prof. (Dr.) Hamraj Saini

Dean Faculty Affairs, SoC

Member-TLC Dr. Vinod K. Gupta

Assistant Professor- SoPS

Member-TLC

Dr. Sunil Ghildiyal

Assistant Professor-SoC

Member-TLC

Dr. Preeti Sharma

Assistant Professor-SoLAM

Faculty In-Charge-TLC

Dr. Bhavna

Associate Professor-SoPPHI

Member-TLC Dr. Gopal Kumar

Assistant Professor- SoET

Member-TLC

Dr. Chetan Kumar

Assistant Professor-SoPPHI

Faculty In-Charge-TLC

Ar. Meet Fatewar

Assitant Professor- SoAD

### **Activities Conducted**

06 workshops and training were conducted for faculty, doctoral students, technical staff, and women leaders.

### Demo Training Session on Course Grade Analysis







### Training Session on Designing and Development of MOOCs

13 Faculty Members
Participated





# Teaching Learning Centre

# TLC

One Week Faculty Development Programme on "Learning Soft Skills for Academicians" 22 Faculty Members
Participated





Interactive Session

12 Faculty Members
Participated





One Week Faculty Development Programme on "Harnessing Artificial Intelligence and Machine Learning Across Diverse Domains"

35 Faculty Members + 2 TLC Nominated Members





# Career Development & Services

# CDC & CSC

At DIT University, Dehradun, The Career Development Cell (CDC) and The Career Services Cell (CSC) are partners in career success. Dedicated teams provide guidance and support to help students achieve their career goals.

# Objective of Career Services Development



CSD connects students with industry, ensuring a smooth transition into professional life. By fostering strong industry-academia partnerships, CSD creates a sustainable path for graduates to thrive.

# Objective of Career Development Cell



CDC: Guiding students towards fulfilling careers. We help identify interests, develop skills, and set goals. Through counseling and workshops, we foster a career-focused campus culture, empowering students to achieve their aspirations.



# Career Services Development

# CSD

### Dean & Head

### Mr. Praveen Saiwal

### CDS

### Manager

Mr. Anurag Pundir

#### **Training Placement Officer**

Mr. Sanket Kumar

#### Placement Executive

Mr. Mridul Pathak

Ms. Jyoti Singh

Mr. Siddhant Chauhan

## CDC

#### Manager - Training

Mr. Abhishek Sarkar

#### **Quantitative & Aptitude Trainer**

Mr. Vibhor Sharma

#### **Training Executive**

Ms. Parul Kalia

Mr. Surendra Dutt Awasthi

#### **Training Officer**

Dr. Sukanya Sharma



# Overview









27 LPA

16.6 LPA

13 LPA

A significant 68% of graduates from DIT University secured employment offers with annual salaries exceeding 7.5 LPA, demonstrating a strong commitment to student success and industry relevance. This impressive figure includes a substantial 17% of students who achieved even higher salaries, surpassing the 10 LPA mark. Furthermore, 9% of graduates secured lucrative positions with annual packages exceeding 15 LPA, showcasing the institution's ability to produce highly sought-after talent. Notably, 6% of students surpassed expectations by landing jobs with annual compensation exceeding 20 LPA, underscoring the exceptional quality of education and career development opportunities provided by DIT.

# **Objective of Career Services Development**









































# **Placement**

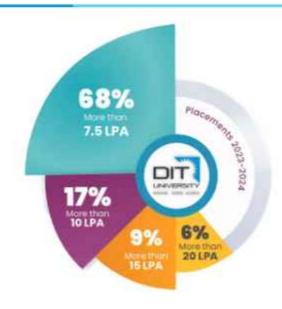
# Overview



# Summary of Campus Recruitment (2023-24)

Criteria	2023-24
otal No. of students in Batch 2024	1090
No. of students opting for other career options (Higher studies / Abroad / Civil Services / Defense / Competitive Exams)	499
No. of students eligible for placements	5591
No. of students placed	220
No. of students in process	266
Placement percentage	62.80%
Highest package	44 LPA
Median package	5.16 LPA
Mean package	5.76 LPA
Total no. of companies visited	182

# Package Offered Overview



# **Placement**

# Overview

### Sector wise Placement 2023-24



# Memorandums of Understanding (MoUs)

Over the past two years, the Career Services Cell at DIT University has worked diligently to forge strong industry relationships. These collaborations are formalized through Memorandums of Understanding (MoUs) with leading organizations across various sectors. The following is a list of organizations with whom DIT University has signed MoUs:

- 1. Virtusa
- 2. McKinley Rice
- 3. Airport Authority of India

# Students Success in Various Competitive Exams

21	07 IELTS	<b>07</b>	04 AFCAT	03 cos	<b>02</b> JAM
GATE	02 GPAT	<b>02</b> MAT	01 SNAP	O1 NDA	O1 DUOLINGO

### **Activities**

- Total Career Enhancement activities done by External experts ranging guidance from field of Industry & Global expectations, Competitive Exams, Technical, Defense Services, Higher Education abroad etc.: 21 (All Reports/ Geotag Pics/ Attendance available on DMS Portal)
- Total Life skills sessions done by Internal team: 12 (All Reports/Geotag Pics/Attendance available on DMS Portal)
- · AMCAT Industry Readiness Assessment conducted for B.Tech, MCA, MBA & BBA

### Collaborations

- 1. MOU with IDP
- 2. Association with NIESBUD
- 3. MOA with ETS (India) For GRE & TOEFL (Pipeline Status: On the verge of Completion)
- 4. Collaboration with Chevening U.K Scholarship Alumni Body (India)

# Central

# Library

The Central Library of the University – "Veda", is fully automated using Koha (Library Management Software) and 40 Apple and HP PCs for utilizing the library e-resources. An Institutional digital repository, using open-source software called DSpace, has been installed for developing an electronic database on thesis, dissertations, and faculty publications.





# Events organized July 2023- June 2024

#### 30th Jun - 01st July 2023

Organized an ICSSR sponsored National Seminar on Academic Integrity & Research in collaboration Veda Central Library & Department of SOLAM

### 12th August 2023

Librarian Day

#### 22nd August 2023

Remote Access Software Training Program

#### 8th September 2023

Orientation Program for students of Engineering / Architecture / Management / Pharmacy / Research Scholars

# Library

# Events organized July 2023- June 2024

Central Library (Veda) has strong base of users who visited and heavily utilized the services of library during the period under report. For authenticity and safety of users' account of readers has adopted dual confirmation method by SMS Alert Service and Web Mail Alert Service.

44500

No. of books Issue July 2023 - June 2024 32450

No. of books Return July 2023 - June 2024

### List of e-Resources

2000		
Subject	Name of Database	No. of Titles
Engineering	IEEE	207 Journals + 2000
Engineering / Management	Delnet	(Conference proceeding)
Management	EBSCO	1151 Journals + magazines
Management	Harvard	1082 Journals + magazines
Remote Access	Kinmbus	460
Plagiarism Software	Turnitince	E- Database

# List of e-Resources

Subject	No. of Volumes
Engineering	1250
Architecture	314
Pharmacy	329
Nursing	1550

# Significant Faculty

# **Achievements**



Dr. Neeraj Kumar Sethiya

**Designation:** Associate Professor, Department of Pharmacy

Award: Listed in the top 2% global scientists for

the third consecutive year

Awarding: Stanford University, Ranking



Dr. Sabhya Sanchi

Designation: Associate Professor, Department

of Pharmacy

Recognition: Listed in the top 2% global

scientists

Awarding: Stanford University, Ranking



Dr. Naveen Singhal

Designation: Professor, Department of

Chemistry

Award: Dean of the Year Award

Event: Uttarakhand Icon Awards 2023

Awarding Agency: Discover Uttarakhand

Magazine



Dr. Rakesh Kumar Saini

Designation: Assistant Professor, Department of

Computer Science

Award: Gyaan Ganga Sammaan 2023

Awarding Agency: Kusum Kanta Foundation and

Manthan Well-fare Society



Dr. Pooja Gupta

Designation: Assistant Professor, Department of

Computer Science

Award: Certificate for Best Paper Award

Awarding Agency: Department of Computer Science and Engineering, NIT Puducherry,

Karaikal



Dr. Srabanti Maji

Designation: Associate Professor, Department

of Computer Science

Award: Certificate for Best Paper Award

Awarding Agency: Department of Computer Science and Engineering, NIT Puducherry,

Karaikal

# Significant Faculty

# **Achievements**



Dr. Dheeraj K Joshi

**Designation:** Assistant Professor, Department of Mathematics

Award: Certificate of Appreciation for the support & cooperation as Program Committee Member & Reviewer

Awarding Agency: Sardar Vallabhbhai NIT



Dr. Brajlata Chauhan

Designation: Associate Professor, Department of Electrical and Electronics & Communication Engineering

Award: Certificate of Appreciation in recognition as Jury Member

Awarding Agency: Uttaranchal University



Dr. Abhilasha Pathak

Designation: Associate Professor, School of Architecture & Planning

Award: Certificate of Recognition - Creative & Promising Architect & Interior Designer of the Year 2023, Uttarakhand

Awarding Agency: Begin up Research Intelligence Private Limited Bengaluru, in Architecture & Interior Design Excellence Awards & Conference 2023 - Global Edition



Dr. Samir Bhargav

**Designation:** Assistant Professor, Department of Pharmacy

Award: Certificate of Appreciation for securing 3rd Position in Poster Presentation

Event: 26th Annual National Convention of the Association of Pharmaceutical Teachers of India- 2023

Awarding Agency: PSIT- Pranveer Singh Institute of Technology (Pharmacy), Kanpur



Dr. Giriraj T. Kulkarni

**Designation:** Professor and Dean, School of Pharmaceutical & Populations Health Informatics

Award: Certificate of Appreciation in recognition of his contribution as Speaker

Event: National Science Day "Indigenous Technologies for Viksit Bharat"

Awarding Agency: Department of

Pharmaceutics, RA and QA, ISF College of

Pharmacy, Moga, Punjab



Dr. Bhavna

**Designation:** Associate Professor, Department of Pharmacy

Award: Certificate of Appreciation for her significant contribution in successfully organizing the 4th Dehradun International Science and Technology Festival – 2023

Awarding Agency: Uttarakhand State Council for Science and Technology and SRADSTA

# I Significant Student

# **Achievements**



Placement at Harness



Placement at Juspay



Placement at Cradlepoint



Placement at Oracle



GATE 2024 AIR 188



JAM 2024 AIR 1284



JAM 2024 AIR 730



JAM 2024 AIR 1284



AIR 28 in OTA 55th Batch

# Significant Student

# **Achievements**



99% in CAT



Best Research Award



Winners of Artistry 2024



Offered admission at Leeds, UK



Area Business Manager



Selected for INSA 2024



Placement at Shell



Placement at Shelf Drilling



2nd position in Red Hackathon

# Schools Overview



Purity, patience and perseverance overcome all obstacles.

All great things must of necessity be slow.

# A School of rchitecture & Planning



**UG Programs** 

Bachelor of Architecture

PG Programs

M.Plan (Urban and Regional Planning)

PHD Programs

Ph.D. in Architecture & Planning

## About School

The School of Architecture & Planning is a dynamic School of DIT. School of Architecture & Planning was established in the year 2005 as Faculty of Architecture and have contributed significantly by imparting quality education. We believe in pluralism and critical thinking and celebrate diversity and of all members of our community. We provide a highly innovative environment for architecture and planning education in which students benefit from extensive one-on- one communication with highly experienced dedicated faculty in formal reviews and informal interactions.

The school is a vibrant hub of exploration, blending theoretical learning with hands-on practice and sustainable design principles, where students are encouraged to push boundaries and create spaces that are not only aesthetically pleasant but also functional and responsive to the societal needs. The School perceive architectural and planning education to be a dynamic and ever-evolving link that bridges the gap between nature, society, and technology. The objective is to provide students with trailblazing technologies and new ways of handling them sustainably.



# Faculty

Dean	
Dr. Anjali Krishan Sharma Professor, Director	Sustainability
Professor	
Dr. Ashutosh Joshi Professor	Urban Planning and Architectural Design
Associate Professor	
Ar. Jitendra Kumar Sarohi	Building Services
Ar. Sandeep Saxena	Architectural Design
Ar. Vartica Saxena	Architectural Design
Dr. Aanchal Sharma	Architectural Design



### Assistant Professor

Dr. Seema Praliya	Construction Management
Ar. Upendra Joshi	Interior Architecture
Ar. Purnima Verma	Climate Change and Sustainable Development
Dr. Akhilesh Kumar	Urban and Regional Planning
Ar. Vedangi Deshpande	Historic Urban Landscape, Heritage Conservation
Ar. Meet Fatewar	Regional Planning
Ar. Manmeet Kaur	Landscape Architecture
Ar. Kunuku Tamogna	Urban Design
Ar. Rajarshi Roy	Urban Design
Ar. Prashi Malik	Historic Urban Landscape, Heritage Conservation
Ar. Supriya K.	Interior Architecture and Design
Ar. Udita Devrani	Sustainable Architecture
Ar. Himadri Gogoi	Urban Planning

Major Highlights: SoAP

 SoAP organized joint studios with Woxsen University Hyderabad and MBM University Jodhpur for the students of B.Arch 3rd and 2nd year.





 SoAP students received 3rd prize in AIS Design Olympiad Edition 05 & special mention in Uttam Architect Award 2023





Three B.Arch students got selected in SPA Delhi for PG Program.



SoAP organized International Conference in April 2024



Two B.Arch students cleared GATE 2024



Lavangika AIR 188 GATE 2024



Saksham Verma AIR 481 GATE 2024

# Academic Project: SoAP

### Bachelor's Projects

42

Total Projects

### **Projects Domains**

- · Commercial and Hospitality Five-star Hotels, Resorts, Malls.
- · Museums and Heritage Conservation.
- · Sports Infrastructure- Stadium, Centre, Training Facility

### Bachelor's Projects

01

Total Projects

### **Projects Domains**

- · Planning strategies for Urban River Valley Development.
- · Structure- Stadium, Centre, Training Facility



### **UG Programs**

- B. Tech in C.S & Engineering
- B. Tech, in Information Technology

Bachelor of Computer Applications

- B. Tech in CS & Engineering with Specialization in (Artificial Intelligence, Machine Learning and Robotics)
- B. Tech in CS & Engineering with Specialization in (Data Science and Analytics)
- B. Tech in C S & Engineering with Specialization in (Internet of Things and Edge Computing)
- B. Tech in CS & Engineering with Specialization in (Cybersecurity and Privacy)
- B. Tech in CS& Engineering with Specialization in (Computer Vision and Biometrics)
- B. Tech in C S & Engineering with Specialization in (Cloud Computing and Block chain)
- B. Tech, in C S& Engineering with Specialization in (Full Stack and Develops)
- B. Tech, in C S& Engineering with Specialization in (Chip Design)

### PG Programs

M. Tech, in Computer Science and Engineering

Master of Computer Applications

### PHD Programs

Ph.D. in Computer Science and Engineering in the department of CSE

Ph.D. in Computer Science and Engineering in the department of CSE

Ph.D. in Computer Sciences in the department of Computer Applications





### About School

The School of Computing at DIT University. Established to unify departments offering programs from Certificate to PhD in Computer Science and Engineering, Computer Applications, and related fields, the School builds on over two decades of excellence in computer science education. Located in the serene Doon Valley, it has quickly become a preferred destination for students aiming for a career in computing. With a focus on cutting-edge education and research, the School continuously updates its curriculum to meet industry demands. In 2020, it introduced a Fully Flexible Choice-Based Curriculum for its B.Tech program, allowing students to tailor their education and emerge as market-ready professionals. The School remains committed to expanding its offerings, developing advanced facilities, and providing top placement opportunities for its graduates





The School of Computing has 66 Assistant Professors, 7 Associate Professors, and 4 Professors with a variety of specializations including robotics, data science, analytics, cybersecurity, artificial intelligence, networks and machine learning to name a few

# Faculty

Dean	
Dr. Debopam Acharya	Network, Mobile Computing and Internet of
Professor	Things
Professor	
Dr. Hemraj Saini	Network Security
Professor & Dean R&C	
Dr. Rama Sushil	Artificial Intelligence, Cloud Computing, Wireless
Dr. Rama Sushii	Sensor Network
Dr. Anil Kumar	Computer Science and Engineering-Data Sci.,
Professor	Deep Learning, Machine Learning, Al,
	Cryptography, IOT, Image Processing



### **Associate Professor**

Dr. Ashok Kumar	Advanced DBMS, ERP
Associate Professor & Head CSE & IT	
Dr. Bharti Sharma	Artificial Intelligence, Machine Learning and
Associate Prof. & Head BCA/MCA	Robotics
Dr. Megha	Artificial Intelligence, Machine
Associate Professor- PG Coordinator	Learning and Robotics
Dr. Anurag Aeron	Remote Sensing, GIS, Satellite Image Processing
Associate Professor	Machine Learning, Fuzzy Logic and Genetic
	Algorithm, Digital Image Processing, Disaster
	Mitigation and Management.
Dr. Garima Verma	Network, Mobile Computing and Internet of
Associate Professor	Things
Dr. Srabanti Maji	Artificial Intelligence, Machine
Associate Professor	Learning and Robotics

### **Assistant Professor**

Dr. Gaurav Dhiman	Electronics and Communications
Assistant Professor- I	
Dr. Sunil Ghildiyal	Computer Networks, Java Programming
Assistant Professor – I	
Dr. Pradeep Singh Rawat	Cloud Computing & Its Application, Data
Assistant Professor – I	Communication & Networking
Dr. Rakesh Kumar Saini	Internet of Things, Wireless Sensor Network,
Assistant Professor – I	Cloud Computing
Dr. Arvind Singh Rawat	Internet of Things, Wireless Sensor Network,
Assistant Professor – II	Cloud Computing
Dr. Anuj Kumar Yadav	Security and Privacy
Assistant Professor – II	
Dr. Priyanka Dahiya	Data Mining, Deep Learning, Machine Learning
Assistant Professor – II	Intrusion Detection and Big Data
Dr. Kriti	Computer vision, Application of artificial
Assistant Professor – II	intelligence techniques to biomedical image
	processing
Dr. Abhilasha Chauhan	Wireless Sensor Networks
Assistant Professor – II	



### **Assistant Professor**

Mr. Kapil Dev Sharma Assistant Professor - III	Network Security
Ms. Meghavi Rana Assistant Professor - III	Machine Learning
Ms. Sneh Lata Aswal Assistant Professor - III	Internet of Things
Assistant Professor - III	Things
Mr. Tarun Kumar	Network, Mobile Computing and Internet of
Assistant Professor - III	Robotics
Mr. Diwaker	Artificial Intelligence, Machine Learning and
Assistant Professor - III	mocrane regulard
Ms. Vedna Sharma	Machine Learning
Mr. Darshan Parmar Assistant Professor - III	Machine Learning
	Systems
Assistant Professor - III	Computer Vision, Blockchain and Decentralized
Ms. Sumedha Bhardwaj	Internet of Things (IoT), Machine Learning,
Assistant Professor - III	Database Management System
Ms. Prabhjot Kaur	Biometric Cryptosystems, C Programming,
Assistant Professor - III	Autophysical Autophysical Company
Mr. Ankit Agarwal	Machine Learning
Assistant Professor - III	Big Data Analytics
Ms. Arti Rana	Artificial Intelligence, Machine Learning,
Assistant Professor - III	1.7 (1) T. T. T. STEELEN ST. T. S. T. S
Mr. Anurag Shrivastava	Image Processing, Machine Learning
Assistant Professor - III	Arthrela intelligence & Machine Learning
Mr. Sanjay Kumar	Artificial Intelligence & Machine Learning
Mr. Sonu Pant Assistant Professor - III	Machine Learning, Data Science
AMPROVINS FLORE CONTROL SATE	
Ms. Sudhani Verma Assistant Professor - III	Data Science
Assistant Professor - III	
Mr. Ravi Shankar Jha	Cloud Computing, Cyber Security



Dr. Tishya Manna	Deep Learning, Data mining, Machine
Assistant Professor - III	Learning, Deep Learning, C, C++, Python.
Dr. Naveen Kumar	Data Mining
Assistant Professor - III	
Dr. Surabhi Patel	Mobile Ad-hoc Network Power
Assistant Professor - III	
Ms. Shalini Kuchhal	Cryptography, IOT and Machine Learning
Assistant Professor - III	
Ms. Preeti Gupta	Computer Science
Assistant Professor - III	
Mr. Ankit Maithani	Machine Learning
Assistant Professor - III	manuscript principle and the party
Ms. Nidhi Wadhwa	Internet of Things, Object Oriented
Assistant Professor - III	Programming, Net Technologies, Multimedia
	Applications
Ms. Shweta Paliwal	Machine Learning, Neural Networks(DL) in
Assistant Professor - III	Healthcare
Mr. Ravi Dhaundiyal	Data Mining, Machine learning Engineering
Assistant Professor - III	
Ms. Bhavana Shrivastava	Computer Science & Engineering
Assistant Professor - III	CIPILS GRANDELLOS JOBO CAJANDO IL PROGRADO PROGRADA MARIA
Dr. Navjot Saini	Soft Computing
Assistant Professor - III	
Dr. Suchi Johari	Vehicular Ad-hoc Networks
Assistant Professor - III	
Dr. Madhu Sharma	Security and Privacy
Assistant Professor - III	
Dr. Pooja Gupta	Al-ML-Robotics
Assistant Professor - III	
Dr. Shirshendu Layek	Computer-Vision, AI, ML
Assistant Professor - III	
Ms. Anushree Negi	Internet of Things , Data Analytics, Artificial
Assistant Professor - III	Intelligence



Prof. Ishaan Dawar	Computing System	
Assistant Professor - III		
Ms, Sumita Lamba	Artificial Intelligence, Deep Learning, Computer	
Assistant Professor - III	Vision and Machine Computation	
Ms. Shreya Deoli	Information Security, Blockchain	
Assistant Professor - III		
Ms. Prakirti Raghuvanshi	Computer Networks, Software Engineering,	
Assistant Professor - III	Data Base Management System	
Ms. Shreya Singh	Information Security	
Assistant Professor - III		
Ms. Neha Singh	MANET, WSN, Machine Learning Network	
Assistant Professor - III	Security, Mac	
Ms. Shabnam	Machine Learning	
Assistant Professor - III		
Ms. Ena Jain	Internet of Things	
Assistant Professor - III		
Ms. Moumita Ghosh	Wireless Sensor Network	
Assistant Professor - III		
Ms. Vishakha Arya	Artificial Intelligence, Machine	
Assistant Professor - III	Learning, Data Science	
Mr. Somil Kumar Gupta	Machine Learning, Data Analytics, IoT	
Assistant Professor - III		



# Major Highlights: SOC

#### NCC Selection

Lokesh Rawat, student of B.Tech CSE selected in NCC Sr. under Officer -29 UK Boys. He secured all India 28th position in officer Training Academy, Chennai-55th course merit list.



### IPR Awareness Workshop

School of Computing, DIT University organized one day workshop on "Intellectual Property Rights Awareness" on 16th December 2023, in collaboration with UCOST. The aim of the workshop was to educate participants on the importance and intricacies of intellectual property, including patents, trademarks, and copyrights.



### Paper Published in Alexandria Engineering Journal (Impact Factor 6.626)

Dr Pradeep Rawat has published a paper with other authors P. Gupta, P. S. Rawat, D. kumar, A. Vidyarthi, & M. Alharbi, "Neural network inspired differential evolution based task scheduling for cloud infrastructure" Alexandria Engineering Journal, 73: 217-230. DOI: https://doi.org/10.1016/j.aej.2023.04.032, [Indexing: SCIE], [IF-6.8], [Quartile 1], May 2023.

### Patent Published

PhD Research Scholar Mr. Chandre Prakash and his guides Dr. Anurag Barthwal and Dr, Debopam Acharya were granted a patent for research "IoT Enabled Flood Monitoring System," Indian Patent, Application No. 202211035930 A, on 28 - Dec - 2023.



### International Conference

An international conference on "Intelligent Systems and Embedded Design" was organized by School of Computing on 15-17 Dec 2023 in collaboration with other departments. Research works from the field of computer science and embedded design related to the Intelligent systems were presented by global researchers.







# Academic Project: SoC

363

**Total Projects** 

Mode A=175

165 in BTCSE 10

in BTIT

Mode B=147

363 in MCA

363 in BCA **Projects Domains** 

- Commercial and Hospitality -Five-star Hotels, Resorts, Malls.
- Museums and Heritage Conservation.
- Sports Infrastructure- Stadium, Centre, Training Facility

#### Master's Thesis Details

80

**Total Projects** 

#### **Projects Domains**

- · Artificial Intelligence
- · Machine Learning
- · Robotics
- · Data Science & Engineering

#### Ph.D. Thesis Details

42

Thesis in total 6 awarded 31 Ongoing

### **Projects Domains**

- · Artificial Intelligence & Machine Learning
- · Internet of Things
- · Data Science and Analytics
- · Security & Privacy
- · Network & Mobile Computing
- · Cloud Computing
- · Computer Vision and Biometrics





### **Under Graduate**

B.Des- Interior Design B.Des- User Experience Design (In collaboration with ImaginXP) B. Des- Visual Graphics & Animation

### Post Graduate

M.Des - User Experience Design (In collaboration with ImaginXP)

## **About School**

School of Design is a dynamic hub of creative innovation where human-centric values act as the cornerstones of our foundation to help forge the design thinking for a new era. At the heart of our ethos lies a commitment to nurturing the next generation of design pioneers, equipping them with the skills, knowledge, and mindset to thrive in a rapidly evolving global landscape.





School of Design is proud to have faculties coming from various design backgrounds such as User Experience Design, Interaction Design, Industrial Design, Interior Design, Animation and Game Design.

# Faculty

Dean	
Dr. Ekta Singh	Design, architecture, consultancy
Professor, Dean	management and infrastructure
Associate Professor	
Mr. Digant Sharma	Interior Design
Professor	
Assistant Professor	
Mr. Dhruv Srivastava	Game Design
Mr. Pankaj Kumar Pal	Animation & Multimedia
Mr. Vansh Grover	UX Design
Mr. Shreyas Dutta	Digital Media Arts
Mr. Abdul Kalam (ImaginXP)	Fin-tech



Ms. Mahima Yadav (ImaginXP)	UX Design
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Ms. Rithika S. (ImaginXP)	UX Design
Mr. Abhinav	Interior Design
Mr. Gaurav Kakar	3D Animation
Mr. Sidharth Chaurisa	Design and Architecture
Ms. Priya (ImaginXP)	UX Design
Ms. Prateek Vishwakarma (ImaginXP)	Industrial Design, UX Design
Ms. Geeta Bhanuse (ImaginXP)	UX Design
Visiting Faculty	
Mr. Paul Damle	Design and Graphics
Ar, Kapil Kumar	Interior Design and Architecture
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# **Major Highlights**

8 expert sessions were aligned with the industry experts on various topics - User Research, Design Thinking, Service Design, Portfolio Development.

# Seminar/ Workshop

Design Thinking for Technical, Management and Design Problems workshop conducted for 117 students of I Year M.Des. & B.Des.









## Industrial Visit

- Ethnography research conducted by 47 students of B.Des UX to understand and identify the most challenging aspects of rural population of hilly areas following villages were studied: Khedmi, Corn Village, Lakhamandal, Dhangtoli, Dudhli, Kalsi, Kimadi.
- Cognitive Design & Ethnography: 36 M.Des. UX I Year students conducted one-day field research in Maldevta to study farmer crop storage challenges and develop solutions.
- Ethnography & People Design: 64 B.Des. UX II Year students researched tourist littering in Maldevta and developed solutions.







## **Top Placements**

Name: Ayush Puri

Company Name: Hero Motocorp

Package: 22.8 LPA Location: Jaipur

Name: Harshitha Allam

Company Name: XMachines

Package: 8 LPA

Location: Hyderabad

Name: Smruti Raushan Batch: B.Des. UX (2020-24) Company Name: Deloitte

Package: 8 LPA Location: Gurgaon





Deloitte.



## Student Achievements

### 1st Prize

15th -17th March, 2023

## Annual Technical Fest - Cognizance Conducted by - IIT, Roorkee

Team - Muskan Saini, Ishika Aggarwal, Aditi Thakur, Lasika Gupta, Navdeep Kaur Batch - M.Des UX 2023-25



### 2nd Prize

26th -28th oct, 2023

Code Red 3.0 Design-a-thon Conducted by - Vivekananda Global University, Jaipur

Team - Amritanshu, Aditi Sonal, Kiran Batch - M.Des UX 2022-24



## PATENT GRANTED

TITLE: WALL HANGING BULB

Luminaire designed by a student of School of Design receives IPR patent

Team - Saadiya Murtuza, Mudita Chugh Batch - 2020-2024





## **Entrepreneur Journey**

# **DESIGNUX Consultancy**

Ayush has already established himself as a leading UX designer and entrepreneur. His consultancy, DESIGNUX, based in Gurugram and Dehradun, is a testament to his dedication and expertise in the field. Ayush has worked with over 50 clients, ranging from startups to multinational corporations across India, Malaysia, the USA, and Dubai.

#### Ayush Kumar

Batch - B.Des UX 4th year





NARANGY DESIGN, a burgeoning UX design agency, was founded by a passionate group of six UX design students from the M.Des UX batch of 2023-2025.

The team - Reshab Gaur, Muskan Saini, Debasmita Dey, Ekta Soni, Rashee Jain, Md Asif Akanda, Md Aziz Howlader, Ishaan Choudhary

Faculty mentor - Mr. Abdul Kalam, Mr. Prateek Vishwakarma.

Initial endeavors - DIT Mobile Application, Uttarakhand Government project on designing a Poultry Farm Management App and its corresponding Admin panel.





# **Academic Projects: SoD**

## Bachelor's Projects

06

Total Projects

### **Projects Domains**

- Retail
- · Tourism
- Healthcare
- Transportation
- · Social Design

## Master's Project Details

## Dissertation

15

Total Projects

### **Projects Domains**

- · New Technologies
- Parking Management
- · User Centered Design
- Rental Services
- Legal Awareness

## **Live Projects**

14

Total Projects

## **Projects Domains**

- SAAS
- Fintech
- · Hospitality
- · Edu-Tech



## **UG Programs**

B.Tech in Civil Engineering

B.Tech in Civil Engineering with specialization in Construction Planning and Management

B.Tech in Civil Engineering with specialization in Smart Infrastructure & Sustainable City Planning

B.Tech in Electrical Engineering

B.Tech in Electrical Engineering with specialization in Electric Vehicle

B.Tech in Electronics & Communication Engineering

B.Tech in ECE with specialization in Information and Communication Technology (ICT)

B.Tech in Mechanical Engineering

### Specialized Tracks

- · Automobile Engineering
- · Robotics and Automation Engineering
- B. Tech in Robotics and Artificial Intelligence

B.Tech in Petroleum Engineering

B.Tech in Energy Engineering with specialization in Carbon Neutrality

B.Tech in Petroleum Engineering with specialization in Oil & Gas Data Science

## PG Programs

M.Tech in Electrical Engineering with Specialization in Power System

M.Tech in Civil Engineering with specialization in Structural Engineering

M.Tech in Civil Engineering with specialization in Transportation Engineering

M.Tech in Civil Engineering with specialization in Geotechnical Engineering

M.Tech in Civil Engineering with specialization in Water Resource Engineering

### Specialized Tracks

- · Artificial Intelligence, Machine Learning and Robotics
- · Data Science and Engineering
- · Internet of Things
- · Computer Vision and Biometrics

### **PHD Programs**

Ph.D. in Civil Engineering

Ph.D. in Electronics & Communication Engineering

Ph.D. in Electrical Engineering

Ph.D. in Mechanical Engineering

Ph.D. in Petroleum Engineering



## About School

Former engineering departments of Dehradun Institute of Technology (established in 1998) were restructured in 2020, and jointly renamed as the "School of Engineering and Technology (SOET)". This is one of the oldest schools of the University comprising of Civil, Electrical, Electronics & Communication, Mechanical and Petroleum Engineering departments. The school is known for its outstanding academic curriculum and delivery, along with some of the best industry practices. "Learning by Doing" is the basic and guiding mantra of the school where students are given wide exposure and opportunities to apply their knowledge of basic science and engineering in solving field problems and projects. Student-centric pedagogy, application-based and learning-doing approaches are some of the USP's of the school which provides the students insight for solution of complex field problems. The school offers B.Tech, M.Tech and Ph D programs in Civil, Electrical, ECE, Mechanical and Petroleum Engineering domains with specializations in various sub-domains. This year, the Department of Mechanical Engineering has started a new program-B.Tech in Robotics and Artificial Intelligence. The school has Centers of Excellence in Automation & Robotics, Land water and Air and Sensor Technology which serve as important support to all the students for pursuing research and projects.



# **Faculty**

The School of Engineering & Technology proudly hosts a diverse academic team of 27 Assistant Professors, 7 Associate Professors, and 4 Professors each bringing a wealth of expertise from varied discipline like electrical engineering, environmental science, structural engineering & more.

### Dean

Dr. Binay Kumar Singh Professor	Structural Engineering
Professor	
Dr. Manoj Kumar	Thermal Engineering
Dr. Gagan Singh	Electrical Engineering
Dr. Yogesh Kumar Tyagi	Composites Manufacturing
Associate Professor	
Dr. Tarumay Ghoshal Associate Professor	Environment Engineering
Dr. Nafees Ahamad Associate Professor & HoD	Electrical Engineering
Dr. Sonika Singh Associate Professor	Electronics and Communication Engineering
Dr. Brajlata Chauhan Associate Professor	Electronics and Communication Engineering
Dr. Gurjinder Singh Associate Professor	Electronics and Communication Engineering

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Dr. Kuldeep Choudhary Associate Professor	Electronics & Communication Engineering	
Dr. Anil Kumar Patil Associate Professor	Thermal Engineering	
Assistant Professor		
Dr Rana Acharrya Assistant Professor - I	Geotechnical Engineering	
Mrs Dipika Kesari Assistant Professor - II	Report sensing & GIS/ Applied Geology	
Dr Himanshu Pratap Singh Assistant Professor - II	Water Resource Engineering	
Dr Rohit Maheshwari Assistant Professor - III	Structure Engineering	
Dr Shulanki Pal Assistant Professor - III	Structure Engineering	
Dr Subhojit Roy Assistant Professor - III	Transportation Engineering	
Dr Prakash Abhiram Singh Assistant Professor - III	Structure Engineering	
Dr. Mohamed Samir Assistant Professor - I	Electrical Engineering	
Mr. Vivek Kumar Gupta Assistant Professor - II	Electronics & Communication Engineering	
Mr. Prabha Shanker Sharma Assistant Professor - II	Electronics & Communication Engineering	
Mr. Saurabh Mishra Assistant Professor - II	Electronics & Communication Engineering	
Dr. Saurabh Awasthi Assistant Professor - II	Electronics & Communication Engineering	
Dr. Ankit Uniyal Assistant Professor - III	Electronics & Communication Engineering	
Dr. Sandhya Prajapati Assistant Professor - III	Electronics & Communication Engineering	
Dr. Ashish Kumar Verma Assistant Professor - II	Electronics & Communication Engineering	
Dr Nitin Kumar Gupta Assistant Professor & Head	Robotics and Automation, Self-Healing materials	
Dr. Subodh Kumar Assistant Professor	Welding Technology, Corrosion of weldments, Manufacturing Science, Materials Science	
Dr. Rajan Raman Assistant Professor	Materials, Automobiles, Thermodynamics	

Dr. Rajeev Pandey	Thermal Engineering, Solar Thermal Energy
Assistant Professor	Systems
Dr. Ravi Kumar	Heat Transfer
Assistant Professor	
Dr. Pankaj Singh Chandel	Thermal Engineering and Power
Assistant Professor	Plant
Dr. Bipin Kumar	Heat Transfer
Assistant Professor	
Mr. Jai Prakash Agrawal	Production Engineering
Assistant Professor	
Dr. Nalin Somani	Materials
Assistant Professor	
Dr. Rakesh K. Pandey	Petroleum Engineering
Assistant Professor and HoD	and property in the species of an interest of the state o
Dr. Gopal Kumar	Petroleum Engineering
Assistant Professor	
Dr. Shilpi Saxena	Chemical Engineering
Assistant Professor	

## Major Highlights: SOET

#### Publication Achievements

Ninety Two research papers were published from the School of Engineering & Technology, and SCI, Scopus, and indexed, peer-reviewed journals, apart from other publications in reputed conference proceeding.

### Student Chapter

Department of Civil Engineering established the student chapter of Institution of Engineers (I) to provide the students a platform for broadening their technical horizon.





### Engineers Day'2023

The Department of Mechanical Engineering successfully organized Engineers Day'2023, a notable event graced by Dr. G.D. Thakre, Scientist at the Indian Institute of Petroleum (IIP), Dehradun, as the chief guest. This event celebrated the achievements of engineers and fostered a culture of innovation and excellence within the department.

### Survey Camp

Department of Civil Engineering organized survey camp for 3rd Year students as the regular annual event.



## Workshop/Seminar

Six workshops, seminars, and webinars were conducted by the Department of Electrical and Electronics & Communication Engineering in the 2023-24 session.



## Training Sessions

The Department of Mechanical Engineering conducted comprehensive training sessions on Industrial Automation and Robotics at the Centre of Excellence - Industrial Automation and Robotics (COE - IAR) at DITU.





### SoET Alumni Secured 86 AIR - UPSC Exam

The Department of Mechanical Engineering proudly mentored Mr. Deepesh Singh Kaira, a 2015-19 batch student, who achieved an impressive All India Rank (AIR) of 86 in the UPSC exam of 2023. This success story is a testament to the strong academic foundation and guidance provided by the department.





## Empowerment Drive Under DITU-UBA Program

The Department of Petroleum Engineering organized An Education Empowerment Drive under the banner of DITU SPE Student chapter and DITU-UBA (Unnat Bharat Abhiyan) program to empower young minds. In addition, all departments of the school conducted industrial visits to impart experiential learning to the students.



- Six numbers of patents have been granted to departments of the School
- One funded research project granted to Dr Ravi Kumar from UCOST
- An Education Empowerment Drive organized by DITU SPE Student chapter and DITU-UBA

## Bachelor's Projects

42

**Total Projects** 

### **Projects Domains**

- · Structure Engineering
- · Geotechnical Engineering
- GIS
- · Wastewater Treatment
- · Embedded System, VLSI Design
- · Wireless Communication, Electric Grid
- · Design, materials and manufacturing
- · Machine Learning
- · Drone Technology Robotics and automation
- · Hydraulic Fracturing in Petroleum
- · Reservoirs Carbon Capture and Storage

### Master's Thesis Details

03

Thesis in Total

## **Projects Domains**

- Mechanical properties of Waste Carbon FiberReinforced Cementitious Composite
- Concrete Incorporating Bacillus Cohnii Bacteria along with Coir and Nylon Fibres
- Performance Based Design of Structures in Severe Earthquake Zones

### Ph.D. Thesis Details

18

Thesis in Total

### **Projects Domains**

- Temporal and Spatial Variation of Water Quality
- · Microbial Concrete
- · Confined Masonry in Severe Seismic Zones
- · Disaster vulnerability
- · Retrofitting
- · Distribution Network
- · Optical devices and optical fiber-based Biosensor
- Design and Development of 2D Material Assisted Plasmonic Optical Fiber Sensors for HealthCare Applications
- Plasmon Based Low-Cost Optical Fiber Biosensors For Biomolecules Detection
- Design and Development of Photonic Crystal Fiber based Plasmonics Sensor
- Design and Modeling of 2-D Material Based Surface Plasmon Resonance Sensor for Health care Applications
- Experimental investigations on wire arc additively manufactured super duplex stainless steel Performance
- Evaluation of Copper-Based Electrodes for Powder mixed Electro Discharge Machining(PMEDM) Process
- Enhancement of CO2-EOR Performance using Predictive Analytics Development of Novel material from waste for various Engineering Application



### About School

The School of Liberal Arts and Management (SOLAM) at DIT University, established in the year 1998, is one of the major schools of the University offering UG, PG and Ph. D programs in the streams of Arts and Management. The School of Liberal Arts, in addition collaborates with other schools to enhance student's interpersonal and professional communication skills, equipping them to present themselves with poise in the professional realm. SoLAM aims to initiate diverse programs with stimulating pedagogy for all around development of students. The department also provides multiple opportunities for faculty and student synergy and thereby establish an environment that epitomizes liberal education. SoLAM has two state of art labs - The Multimedia Language Lab and The Business Analytics lab is equipped with the best equipment and software for data analysis, modelling and decision making. The lab allows students to use latest software like Tableau, Nvivo, Smart PLS, SPSS etc. in a handson way, develop data-based decision-making skills, and solve real-world business problems.



# Faculty

## **Department Management Studies**

### Dean

Dr. Hemraj Verma Professor, Director Marketing

### Professor

Dr. Prakash Tiwari Professor **Business Analytics** 

Dr. Vijay Kumar Jain

Marketing

Professor

## **Assistant Professor**

Dr. Pankaj Kumar

Human Resource

Dr. Preeti Sharma

Finance

Dr. Karuna Evangeline Prakash

Human Resource

## Department of Humanities & Liberal Arts

Professor	
Dr. Vijay Negi Professor & HOD	English
Associate Professor	
Dr. Shriya Goyal	English
Assistant Professor	
Dr. Sakshi Semwal	English
Dr. Deepesh Kumar Thakur	English
Dr. Sandeep Kumar Sharma	English
Dr. Santosh Singh	English
Dr. Jaya Upadhyay	English
Dr. Priyanka Danny	English
Dr. Archana Gaur	English
Dr. Anamika Saha Gupta	English
Dr. Priyanka Kumari	English
Dr. Yogesh Kumar	English
Dr. Hiranmoy Roy	Economics
Dr. Ajay Kumar	Economics
Dr. Vikash Kumar Mishra	Economics
Dr. Aditya Kumar Sharma	Economics
Dr. Jeeten Krishna Giri	Economics
Dr. Vipul Gupta	Economics
Dr. Ramanpreet Kaur	Economics
Dr. Monika Srivastava	Psychology
Dr. Pranav Kumar	Psychology
Dr. Shivika Dutt	Psychology



## Department of Humanities & Liberal Arts

## **Assistant Professor**

Dr. Imran Hussain	Psychology	
Mr. Ram Kumar Gupta	Psychology	
Mrs. Deepshikha Tyagi	Psychology	
Dr. Ruchi Singh	Psychology	
Mrs. Malvika Tiwari	Psychology	
Dr. Vikas Kumar Sharma	Psychology	
Dr Usha Jyoti Gupta	Psychology	

## Major Highlights: SoLAM

- Prof. Monika Srivastava was Nominated as Member, of National Advisory Committee for International Conference on "India a \$5 Trillion Economy: Challenges and Gateways" on 23rd - 24th February 2024 organized by PSIT College of Higher Education @ PSIT Campus, Kanpur, Uttar Pradesh, India
- · Dr. Sakshi Semwal received Leadership and Long Service Award at Teachers Day 2023.
- Prof. Monika Srivastava conducted a session on 'Al and Psychological Testing' for Faculty members and Research Scholars of the Education Department, Lucknow University, on 6th September 2023.
- . Dr. Pankaj Kumar and Dr. Shriya Goyal received Best Teacher Award at Teachers Day 2023.
- . Dr. Vijay Negi and Dr. Deepesh Thakur received Long Service awards Teachers Day 2023.
- Ms. Akanksha Rudra Tripathi and Ms. Aarfa presented their research papers in International Conference organized by University of Bucharest.





## Academic Project: SoLAM

### Master's Thesis Projects

14

Total Projects

### **Projects Domains**

- · SAP SLcM Student Master Data
- Future of Data-Driven Marketing: Exploring Emerging Looker Studio Features in Google Ads Optimization
- · SAP SLcM Academic Structure
- · Role of Social Media Marketing Strategies in enhancing brand engagement
- · Impact of Goods and Service Tax (GST)
- · Role of customer reviews in shaping online purchasing decisions
- · Analysis of SEO Strategies by Higher Education Institutions in Uttarakhand
- · Digital Marketing in Airline Sector
- · Assessing the behavioral factors influencing financial planning decisions
- · Synergies and Challenges: Integrating AI in HR Practices
- · Sources of Recruitment at Firstory Dehradun
- · Unlocking Employee Engagement in Remote Work Environment
- The Impact of FII Stake on The Market Performance of The Pharmaceutical Companies
- Effectiveness of using machine learning in stock market prediction: A case study of Indian Stock Market The Impact of Dividend Payout Ratio on the
- · Financial Performance: A Case
- Study of Indian Automobile Industry Workplace Happiness
- · Reasons of Rejections in the Interview at Firstcry
- · Diversity and Inclusion at workplace in India

## Ph.D. Thesis Projects (Management)

18

Total Projects

### **Projects Domains**

- An Empirical Study on Social Media Sentiments in Indian Stock Market: A perspective of Investor Behavior
- Employee Engagement and Organizational Performance: An Empirical Study of Service Sector
- · Workplace Spirituality and Organizational Performance
- A Study on Impact of Credit Risk Management on Bank's Profitability: An Indian Perspective
- · Job Embeddedness and Turnover Intentions

- · Organic Consumerism: An Indian Perspective
- · Minimalism and Consumer Wellbeing: A Study of Indian Consumer
- A Empirical Study of Diffusion of Digital Lending Impacted by Adoption Intention of Consumer
- Impact of Perceived Environment, Social and Corporate Governance (ESG) on Consumer Behavior
- Human Resource Analytics and Artificial Intelligence as Strategic Advantage for Green HR Practices.
- . Circular Economy & Sustainable Business Performance
- · Analysing the efficacy of derivatives in mitigating financial market risk.

### Ph.D. Thesis Details (Humanities)

18

**Total Projects** 

#### **Project Domains**

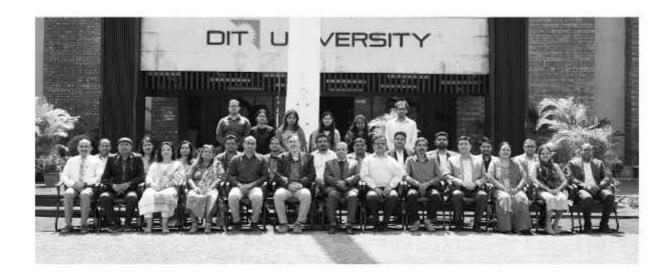
- · Tradition and Modernity: Vivekananda's Philosophy of Civilization
- Crossing the Margins & A Study of Trends and Tradition in the Selected Works of Padma Vishwanath, Boman De
- · Reinterpreting the Mahabharata in selected Post- Modern Mythological Fiction
- Tracing Ecocultural Criticism in the Selected Works of Mamang Dai and Easterine Kire
- · An Epistemology of Domestic Violence against women in English Writings
- Postpartum Depression Predictors: An Interventional Study through Yoga
- Depression, anxiety, stress, happiness and non-meditation practitioners: A comparative study
- · Regeneration of Igbo cosmology in contemporary postcolonial
- · African fiction: A study of selected texts of Chigozie Obioma and Akwaeke Emezi
- · Socio-linguistic study of the folk proverbs of Garhwal
- A study of the trail and triumphs of Indian transgenders as depicted in select Autobiographies
- The role of renewable energy on India's transition to clean economy Impact of green finance and fintechon Economic Growth- A case in India
- Effect of relaxation techniques on sleep quality of life on people with visual impairment: A comparison between
- · JPMR and Yog Nindra



## About School

School of Physical Sciences has three departments: Physics, Chemistry, and Mathematics. The school offers undergraduate programs in Physics, Chemistry, Mathematics, and Statistics, postgraduate and Doctorate programs in Physics, Chemistry, and Mathematics. The curriculum is designed as per the guidelines of the New Education Policy (NEP) which enables students to choose courses of their own choice. Subject experts from the school, industry and academia ensures that the students have adequate exposure to advanced sophisticated software such as MATLAB, MAPLE, SAS, R-Programming etc and get the understanding of the latest technologies. Centre of Excellence like Advanced Functional Smart Materials, Materials Science and Nano Engineering, and Land Air Water are established to foster research in the area of physics, chemistry, Environmental Science, and advanced cutting-edge research areas. Our highly qualified and experienced faculty members bring their experiences into the classroom to ensure overall academic development.





# Faculty

### Dean

Dr. Naresh Mohan Chadha Professor Scientific Computing, Numerical Analysis and Differential Equations

## **Department of Physics**

### Professor

Dr. Debashish Chowdhury	Interdisciplinary Applications of
Professor	Statistical Physics, Biological Physics
200 000 000 000 000 000 000 000 000	

Dr. Manoj Bhatnagar Condensed Matter Physics Professor

Dr. Surbhi Sachdev Atomic & Molecular Collision Physics
Professor

### Associate Professor

Dr. Ravi Kumar Shukla	Soft Matter Physics
Dr. Parveen Kumar	Condensed Matter Physics



### **Assistant Professor**

Dr. Vishakha Kaushik	Condensed Matter Physics
Dr. Sonam M Mishra	Quantum Optics
Dr. Samta Manori	Magnetic Nanostructures and Thin Films
Dr. Natasha Awashti	Open Quantum System
Dr. Soni Sharma	Theoretical Nanoscience
Dr. Atanu Bhatta	String theory
Dr. Sanghamitro Chatterjee	Soft Condensed Matter Physics

## Department of Chemistry

## Professor

Prof. Naveen Singhal Organic Chemistry
Professor

### **Assistant Professor**

Dr. Manisha Duseja	Phyto-chemistry, Organic Chemistry
Dr. Suheel Porwal	Organic Chemistry
Dr. Jabrinder Singh	Environmental Sc.
Dr. Sanjeev Saini	Organic Chemistry
Dr. Ashish Khanna	Computational Chemistry
Dr. Anmol Singh	Computational Chemistry
Dr. Anita Bhatia	Inorganic Chemistry
Dr. Manas Ranjan Das	Inorganic Chemistry

## Department of Mathematics

### Professor

Dr. Rakesh Mohan Special Functions and Differential Equations
Professor & DSW

### Associate Professor

Dr. Pooja S. Saxena	Differential Geometry
Dr. Jogendra Kumar	Instability Analysis in Fluids, Numerical Analysis



## **Assistant Professor**

Dr. Shilpi Singhal	Cosmology
Dr. Fateh Singh	Bio-Mathematics, Modelling
Dr. Nitin Kumar Kamboj	Demography and Bio-Statistics,
	Statistical data analysis
Dr. Sandeep Sharma	Mathematical Modelling
Dr. Dheeraj Kumar Joshi	Fuzzy set theory, Soft computing
Dr. Himani Pant	Reliability Theory
Dr. Tribhuvan Singh	Statistical Process Monitoring, Runs and
	Scans Statistics
Dr. Alpa Singh Rajput	Soft Topology
Dr. Vikas Chaurasiya	Mathematical modelling in heat and
b urbru-relation of proprior security and engineering	mass transfer
Dr. Vinod Kumar Gupta	Instability problems in fluids



## Major Highlights: SoPS

- Faculty members from the School of Physical Sciences published a total of 90 research articles in peer reviewed journals and secured 16 patents and books and have been recognized with several prestigious research awards.
- Faculty from the Departments of Physics and Chemistry are currently managing six research projects with a combined funding of 26.5 Lakhs.
- Two students from the B.Sc. (Hons.) Mathematics program successfully cleared the Joint Admission Test for M.Sc. (JAM) 2024.
- Ms. Jahnvi Naithani, a B.Sc. (Hons.) Statistics student was awarded second prize in the Oration Competition during the National Space Day 2024 (NSpD24) event organized by the Indian Institute of Remote Sensing (IIRS), Dehradun.
- Mr. Devesh Pandey, a student of B.Sc. Chemistry was selected for the IASc-INSA-NASI Summer Research Fellowship Program 2024 at the Council of Scientific and Industrial Research - Central Salt Marine Chemicals Research Institute (CSIR-CSMCRI), Bhavnagar, Gujarat.
- Ms. Ankita Thakur, an M.Sc. Chemistry graduate has joined as a Project Associate-I at the Council of Scientific and Industrial Research - National Institute of Oceanography (CSIR-NIO), Goa.
- B.Sc. student, Ms. Sneha Pundir secured admission to the MS Program in Analytical Chemistry at the University of Gothenburg, Sweden.



## Academic Project: SoPS

## Bachelor's Projects

23

Total Projects

### **Projects Domains**

#### **Physics**

- · Nanomaterials for waste water treatment
- · Quantum Optics
- · Quantum Information Theory
- · Quantum dots for biomedical applications

#### Chemistry

- Natural Products Chemistry
- Nanomaterials
- Environmental Science
- · Inorzanic Chemistry
- · Quantum Chemistry
- · Bio lubricant
- Aerozels

#### Mathematics

- · Soft Set Approach for Personalized Yoza Selection
- Time Series for Stock Prices: Analysis and orecastinz

#### Master's Thesis Details

13

**Total Projects** 

### **Projects Domains**

### **Physics**

- · Nanoparticle-Doped Liquid Crystals and Their Photonics Application
- Efficient photocatalytic degradation of textile dye pollutants using nanocomposites
- . Dynamics of Quantum Correlations in Presence of Weak Measurements

#### Chemistry

- Renewable Cellulosic Biomass Derived Aerogel -Advancing.
- Sustainable Solution for Oil Spill Cleanup: An Innovative Approach towards Clean Future.
- . Ab Initio study of self-reaction of CH302 and CH3CH202 radicals
- Spiro-oxindoles based sensor array for multivariant analysis using machine learning.
- Valorization of Waste Pine Needle for Removal of Pharmaceutical Compound.
- Water quality Parameters from Industrial sites.

#### Mathematics

- Novel Russel's Approximation Method for Transportation problem under Hesitant Bifuzzy Environment
- . Parametric Analysis of Gardner's Equation using the Basic (G'/G)
- · Method and Bifurcation Analysis
- Study of Transportation Problem under Fuzzy, Intuitionistic Fuzzy and Dual Hesitant Fuzzy Environment
- · Delay Differential Equations and their Applications
- Delay Differential Equations and their Application

## Ph.D. Thesis Details (Applied Sciences)

15

**Total Projects** 

#### **Physics**

- Preparation and characterization of eco-friendly lyotropic liquid crystal materials as green templates.
- Synthesis and Characterization of Graphene Oxide based Composites for Different Applications
- Green synthesis and characterization of anisotropic metal nanostructures/ graphene composites and their liquid crystalline phases for photo-degradation and adsorption
- · Synthesis and Characterization of Transition Metal IonModified BST Ceramics
- Design and Analysis of Plasmonic based Devices and Sensors with improved Performance
- Synthesis and Characterization of Magnetic Nanostructures for Catalytic and Memory Storage Applications

#### Chemistry

- Syntheses and Characterization of Multifunctional Additives and their Application in Lubricating oil
- Syntheses and Characterization of Ultralight Aerogel Derived from Renewable Biomass and Biocompatible Polymers for Engineering Applications
- Synthesis and characterization of graphene oxide composites for different Applications

#### Mathematics

- · Study Commutative Rings Graded by Finitely Generated Abelian Group
- Performance Evaluation of Distributed Processing System Using Soft Computing Techniques
- Numerical study of a few Nonlinear Partial Differential Equations Emerging from plasma physics.
- Study of Weakly Non-Linear Stability Analysis of Newtonian and Non-Newtonian
- Study and applications of hesitant bi-fuzzy and probabilistic dual hesitant fuzzy methods for decision making problems



UG Programs

Bachelor of Pharmacy

PG Programs
M.Pharm. Pharmaceutics
M.Pharm. Pharmacology

PHD Programs

Ph.D. in Pharmacy

## **About School**

Established within the Faculty of Pharmacy at DIT University, Dehradun, SoPPHI offers a unique blend of pharmaceutical sciences and population health informatics. SoPPHI provides a comprehensive range of programs, including B.Pharm (established in 2005), M.Pharm in Pharmaceutics (2009) and Pharmacology (2021), and Ph.D. programs in Pharmacy, Clinical Research, and Population Health Informatics. The school is recognized for its forward-thinking curriculum, strong industry connections, and emphasis on research and innovation, ensuring students are well-prepared for careers in healthcare. SOPPHI maintains multiple collaborations with industry and healthcare institutions, enhancing career prospects for its graduates.

The school is accredited by the Pharmacy Council of India (PCI). It holds an NIRF rank of 81 and has signed various MoUs with central labs, universities, and pharmaceutical industries to strengthen its academic and research activities.



# Faculty

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.,	-	~	

Dr. Giriraj T Kulkarni Professor, Dean Pharmaceutics

### Professor

Dr. Satish Kumar Gupta Professor Pharmaceutical Chemistry

## **Associate Professors**

Dr. Mandeep Kumar Arora	Pharmacology
Dr. Bhavna	Pharmaceutics
Dr. Manmohan Singhal	Pharmacology
Dr. Neeraj Kumar Sethiya	Pharmacognosy
Dr. Ashok Behera	Pharmaceutical Chemistry

## **Assistant Professors**

Dr. Rajeev Kumar Sharma	Pharmaceutical Chemistry	
Dr. Vijay Singh Rana	Pharmacognosy	
Dr. Samir Bhargava	Pharmaceutics	
Dr. Mohd. Habban Akhter	Pharmaceutics	
Mrs. Ritu Tomar	Pharmacognosy	
Dr. Uddipak Rai	Pharmacology	
Dr. Lakhveer	Pharmacology	
Dr. Santosh Kumar Rath	Pharmaceutical Chemistry	
Dr. Amit Kumar Dubey	Pharmaceutics	
Dr. Shashank Shekher Mishra	Pharmaceutical Chemistry	
Dr. Sonu Sharma	Pharmaceutical Chemistry	
Dr. Mahendra Singh	Pharmaceutics	
Ms. Payel Mal	Pharmacology	
Dr. Chetan Ram	Pharmacology	
Mrs. Vibhooti Popala	Pharmaceutics	
Dr. Sabya Sachi Das	Pharmaceutics	
Dr. Tripti Halder	Pharmaceutics	
Dr. Satish Shilpi	Pharmaceutics	
Dr. Chetan Kumar	Pharmaceutical Chemistry	
Mrs. Mitali Panchpuri	Pharmaceutics	
Mr. Vivek Sahu	Pharmaceutics	
Dr. Pankaj Pant	Pharmacology	
Lecturer		
Ms. Saumya Rastogi	Pharmacology	

## Major Highlights: SOPPHI

- Successful publication of numerous research articles in high-impact journals and patents by faculty and students.
- · Introduction of new research initiatives focusing on healthcare informatics and drug discovery.
- · Organization of international seminars and workshops, enhancing the global reach of SOPPHI.
- Strengthening of industry collaborations, leading to improved internship and placement opportunities for students.
- Upgradation of laboratory infrastructure with state-of-the-art technology to support advanced research.





## Academic Project: SOPPHI

#### Bachelor's Projects

76

**Total Projects** 

#### **Projects Domains**

- Pharmacovigilance
- · Pharmaceutical Marketing
- · Regulatory Affairs
- · Pharmaceutical Analysis

#### Master's Thesis Projects (M.Pharm : Pharmacology)

15

Total Projects

#### **Projects Domains**

- · Evaluation of Curcumin conjugates against experimental Psoriasis.
- Evaluation of anti-tumor effect of curcumin against experimental melanoma.
- Assessment of wound healing potential of nanogel containing curcuma cassia extract.
- Evaluation of Green synthesis TiO2 Nanoparticles for lymphocytic leukemia.
- Evaluation of hydroalcoholic extract of Tinospora cordifolia against Sodium Valproate induced Postnatal Autism in BALB/c mice.
- · Evaluation of anti-PCOS activity of Acacia catechu extracts.
- Preclinical Evaluation of Therapeutic Activity of trans-resveratrol and Phloroglucinol.
- Mucoadhesive Chitosan Microspheres in the Amelioration of Diabetic Nephropathy.
- Preclinical evaluation of therapeutic activity of Berberine chloride and Phloroglucinol in the Amelioration of Diabetic Nephropathy.
- Epigenetic regulation of BCLAF-1 to prevent hypoxia induced metastatic progression of mammary gland carcinoma.

#### Master's Thesis Projects (M.Pharm: Pharmaceutics)

15

Total Projects

#### **Projects Domains**

- Nano-lipid carrier-based drug targeting for effective management of rheumatoid arthritis.
- Mitochondrial targeting of anticancer drugs by gold nanoparticles to solid tumors.
- Formulation and characterization of transdermal drug delivery of Alendronate Sodium in combination with magnesium phosphate.
- Development and evaluation of intranasal formulation of Xanthotoxin in the treatment of neurodegenerative disorders.
- Fabrication and evaluation of biogenic gold nanoparticles using ficus carica
- · Stimuli Responsive hydrogel system in diabetic wound healing.
- Formulation and optimization of fluconazole loaded Glycerosomes topical gel for fungal infection.
- · Development of herbal DNA-Nanogel for brain meningitis.
- Green Nanoparticle synthesis from green walnut/black walnut for candidiasis.
- A nanomolecular vaccine for MDR strain/skin infection: An in-silico, in-vitro approach.
- · Masking taste and evaluation of Cefuroxime Axetil oral suspension.

#### Ph.D Thesis Projects

50

Total Projects

#### **Projects Domains**

- Pharmacovigilance
- Pharmacology
- Pharmaceutics

09 04 Awarded Ongoing





## **UG Programs**

Bachelor of Science in Nursing

## About School

The DIT College of Nursing is dedicated to the academic and practical preparation of professionals in the field of Nursing. It offer Bachelor of Science in Nursing (4 years including internship), College of Nursing is equipped with simulation labs, clinical learning centers, and partnerships with hospitals to ensure that students gain hands-on experience in Max Super Speciality Hospital with world class training. The main mission of College of Nursing is to let students arm the clinical skills, critical thinking skills, and ethical standards needed to provide high -quality care to patients. This includes detailed clinical experience promoted by modelling of partnerships with laboratories, skills, hospitals and medical centers. Students are exposed to various health conditions so that they can apply theoretical knowledge under actual conditions under the guidance of experienced teachers. Faculty at the college are experienced nursing professionals and educators who guide students through a rigorous curriculum that includes anatomy, physiology, pharmacology, ethics, and advanced nursing practices. They emphasize critical thinking, evidence-based practice, and compassionate patient care. Apart from academics, nursing college also focus on the holistic development of students by cultivating qualities like leadership skills, communication skills, and teamwork. The curriculum incorporates seminars, workshops, and community outreach programs to produce well-rounded professionals.





# Faculty

Principal	
Prof. Helen Ran	Medical Surgical Nursing
Vice Principal	
Prof. Lalitha	Mental Health Nursing
Assistant Professor	
Mr. Ashok Kumar Bairwa	Child Health Nursing
Ms. Divya Trivedi	Community Health Nursing
Ms. Chhanda Chakraborty	Medical Surgical Nursing
Nursing Tutor	
Ms. Shradha Uniyal	Mental Health Nursing
Ms. Shreen Singh Surin	Obstetric & Gynaecological Nursing
Mr. Gaurav Negi	Child Health Nursing
Mr. Manjul Balodhi	Medical Surgical Nursing
Mr. Ajay Sharma	Mental Health Nursing
Mrs. Kusumlata	
Mrs. Nivedita Sharma	



## Major Highlights: College of Nursing

#### World AIDS Day

The program was hosted by DIT College of Nursing and DIT College of Health Professionals in collaboration with NSS Council. Various competitions were held eg: Debate competition, Poster competition, Quiz competition and Awareness rally.

#### The Nukad Natak

The Nukad Natak, organized by Amar Ujala, was an impactful street play conducted by 1st Semester Nursing students to spread awareness on the serious issue of drug addiction. The theme, \*"Nashe Ki Andheri Rah Main Ujala", focused on highlighting the dark path of substance abuse and the hope of recovery through proper guidance and rehabilitation

#### World Environment Day

To celebrate this important day, the NSS Council and Youth Red Cross Society of DIT University hosted a poster-making competition and debate competition along with tree plantation. All the students of 2nd semester participated in the event.





#### First Aid Module

To fulfill the academic requirement first aid module was conducted for 2nd semester students. Experts from Red Cross Society were invited for guest lecture, the All the students of 2nd semester participated in the event.



## **UG Programs**

B.Sc. in Medical Lab Technology (B.MLT)

B.Sc. in Optometry (B. Optom.)

B.Sc. in Operation Theatre Technology

Bachelor of Physiotherapy (BPT)

## About School

The College of Healthcare Professions at DIT University is committed to providing high-quality education that is in line with national and international standards. Our focus on holistic development, cutting-edge facilities, and international collaborations makes CoHP an ideal destination for students and faculty\ seeking to advance their careers in the healthcare sector. By embracing the principles of the New Education Policy and adhering to UGC guidelines, we ensure that our programs are not only academically rigorous but also practically relevant. Each of our programs is designed with a focus on innovation, practical training, and global relevance



# Faculty

Dean	
Prof. Dr. Moattar Raza Rizvi	
Professor	Diabetic Neuropathy
Assistant Professor	
Dr. Pradipta Bhattacharyya	Cornea and contact lenses
Associate Professor and Head of	
Department	
r. Vipin Nautiyal	Microbiology
ssistant Professor	
r. Charu Sharma	Neurology
ssistant Professor	
Ar. Sk Jiaul Rahaman Baksh	Pediatric Optometry
ssistant Professor	
fr. Kunal Bijalwan	Sports Medicine
Assistant Professor	
As. Sadhna Semwal	MLT (PATHOLOGY)
Assistant Professor	
As. Potsangbam Nandita	Sports Rehabilitation
Assistant Professor	
fr. Anil Singh Negi	Medical Lab Technology & Hospital
Assistant Professor	administration
Mr. Prashant Maurya	Anaesthesia
Assistant Professor	

# **IOT Lab**



2020-21

Became Functional

02

Number of Faculty Members

07

Number of PhD Scholars

#### Vision

Perform multidisciplinary applied research to solve pressing problems of society in IoT and cyber-physical systems. Train undergraduate students on emerging IoT-related technologies and their applications.

#### Mission

To drive excellence on the Internet of Things through research, education, innovation, and collaboration, to advance IoT technologies, to foster digital transformation, and to create a more connected and efficient world.

## Objective

The Centre of Excellence (CoE) in the Internet of Things (IoT) serves several important purposes, which are typically aligned with advancing the field of IoT providing various benefits to industry, academia, and society.

#### Some of the key objectives of CoE in IoT include:

- Innovation Hub
- · Research and Development
- · Education and Training
- · Industry Collaboration

## Faculty in COE (IoT)

Debopam Acharya, Dean, School of Computing

Research Interest area: IoT, IoT Analytics, Smart Environment, Mobile Sensing, Context aware Computing

# **IOT Lab**

## Faculty in COE (IoT)

#### Dr. Divya Lohani, Associate Professor

Research Areas: Internet of Things, Cyber-Physical Systems, Smart Environments, Intelligent Vehicles, Context-Aware Sensing, Edge Computing, Sensor Data Analytics, Wireless Sensor Networks

#### Prof. Dr. Hemraj Saini

Research Areas: Cybersecurity, Mobile Edge Computing, Cloud Computing

#### PhD Scholars in COE - IOT

Ms. Ena Jain	Environmental Monitoring
Mr. Tarun Kumar	Intelligent Transportation
Mr. Chandra Prakash	Disaster Management
Ms. Shalini Kuchchal	Mobile Sensing
Ms. Nidhi Wadhwa	Sensor Fusion
Ms. Anushree Negi	Disaster Management
Ms. Ishmeet Kaur	1st RAC Due

## 05 Paper Published

- Prakash, C., Barthwal, A. & Acharya, D. An IoT-based system for monitoring and forecasting flash floods in realtime. J Earth Syst Sci 132, 159 (2023). https://doi.org/10.1007/s12040-023-02172-4.
- C. Prakash, D. Acharya and A. Barthwal, "Hydro-Meteorological Flood Data Sensing, Prediction and Classification using Internet of Things," 2023 IEEE Region 10 Symposium (TENSYMP), Canberra, Australia, 2023, pp. 1-6, doi: 10.1109/TENSYMP55890.2023.10223648.
- T. Kumar, D. Acharya and D. Lohani, "A Data Augmentation-based Road Surface Classification System using Mobile Sensing," 2023 International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3), Srinagar Garhwal, India, 2023, pp. 1-6, doi: 10.1109/IC2E357697.2023.10262705.
- R. S. Rana, N. Bora, S. Chaudhary and T. Kumar, "Mobile Sensing Based Classification System for Human Fall Detection," 2023 6th International Conference on Contemporary Computing and Informatics (IC3I), Gautam Buddha Nagar, India, 2023, pp. 87-92, doi: 10.1109/IC3I59117.2023.10397709.
- M. A. Sheikh, K. Jain, M. Suhail, R. Dhaundiyal and T. Kumar, "Evaluation of Tree-based Ensemble Bagging for Vehicle Fall Detection," 2023 6th International Conference on Contemporary Computing and Informatics (IC3I), Gautam Buddha Nagar, India, 2023, pp. 295-300, doi: 10.1109/IC3I59117.2023.10398129.

## 01 Patent granted

 C. Prakash, A. Barthwal, D. Acharya, "IoT Enabled Flood Monitoring System," Indian Patent, Application No. 202211035930 A, Publication Date: July 01, 2022 (Granted).

# Industrial Automation & Robotics (IAR)



#### About us

This Centre at DIT University prepares multidisciplinary engineering graduates to fulfil the IAR workforce requirements of the industry. The Centre has world class infrastructure supported by HYDAC Germany equipment's, training kits, hardware, software and teaching aids with trained faculty.

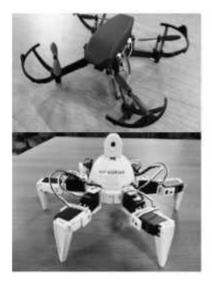
The center has five laboratories in Hydraulics, Pneumatics, Sensors, PLCs, and six Axis Industrial Robot. It supports PhD research and conducts part-time/full-time training for the faculty, students as well as industry personal.

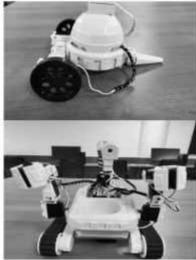
This center caters to the growing demand from engineering and low-cost automation with hydraulics and pneumatics in India as well as worldwide.

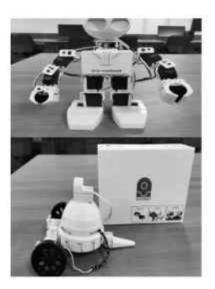
## **Objectives**

- · HYDAC India CoE will create a rich library of Block sets, Components and Patterns.
- . The Centre will train the future workforce as per industrial aspects in a cost-effective way.
- The Centre will be a platform for creating interns for HYDAC India and for other MNCs.
- · The Centre will focus on knowledge transfer, research and innovations.
- The Centre will provide training and consultancy to Research scholars and Engineers of different industries on library developed by the Centre at low cost.
- Leverage academic environment to provide meaningful R&D and product development support to Research Scholars, Engineers and National Level Industries (MNCs)
- Several Skill Development & Certificate Programs for Polytechnic, ITI and B. Tech students.

# **Artificial Intelligence & Robotics**







2021-22 Became Functional

04
Number of Faculty Members

04 Number of PhD Scholars

## Objective

Establishing a Center of Excellence in Al and Robotics to create a hub for innovation and interdisciplinary collaboration in Al and robotics to address complex technological challenges. Some of the key objectives of CoE in Al and Robotics include:

- . Education & Training
- · Industry Collaboration
- · Research Excellence
- · Professional Development

## Faculty in COE- Artificial Intelligence & Robotics

#### Dr. Srabanti Maji

Research Areas: Al-ML Robotics, Computer Vision, Bioinformatics, Biomedical, Computational Biology

School of Computing

#### Dr. Kriti

Research Areas: AI-ML Robotics, Computer Vision, Biomedical, Pattern recognition School of Computing

# **Artificial Intelligence and Robotics**

#### Dr. Navjot Saini

Research Areas: Artificial Intelligence, Soft Computing, Braincomputer interface School of Computing

#### Mr. Maanas Singal

Research Areas: Al-ML Robotics

School of Computing

## PhD Scholars in COE - Artificial Intelligence & Robotics

Ms. Preeti Gupta	Research Areas: Biomedical, Image segmentation
Ms. Shabnam	Research Areas: Biomedical, Image segmentation
Mr. Diwakar	Research Areas: Biomedical & Computer Vision
Ms. Vishakha Arya	Research Areas: Artificial Intelligence, Machine Learning
Ms. Nidhi Wadhwa	Research Areas: Artificial Intelligence, Machine Learning

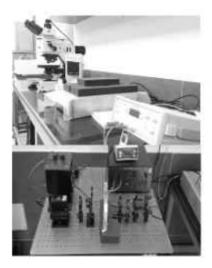
## 05 Paper Published

- Srabanti, Maji, Kriti, A. Narayan Shukla, V. Arya and P. Gupta, "Object Detection Its Progress and Principles," 2023
  12th International Conference on System Modeling & Advancement in Research Trends (SMART), Moradabad, India,
  2023, pp. 225-233, doi: 10.1109/SMART59791.2023.10428260.
- Diwaker, Kriti, J. Rawat, "Assessing the effect of pre-processing techniques on the classification of breast cancer using histopathological images," 3rd International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS), Kalady, Ernakulam, India, 2023, pp. 101-105, DOI: 10.1109/ ACCESS57397.2023.10201037. [Indexed in Scopus], August 2023.
- S. Pal, A.K. Mishra, Kriti, "Artificial intelligence-based framework for predicting monkeypox disease", 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, doi: 10.1109/CSET58993.2023.10346841. [Indexed in Scopus], December 2023.
- S. Saxena, S. Maji, A. Agarwal and A. Goel, "Ensemble of CNN and DenseNet121 Models for Pneumonia Prediction Using X-Ray Images," 2023 6th International Conference on Contemporary Computing and Informatics (IC3I), Gautam Buddha Nagar, India, 2023, pp. 99-104, doi: 10.1109/IC3I59117.2023.10397964. January 2024.
- Srivastava, R., Maji, S., Panda, T. (2023). Machine Learning Techniques in Cardiovascular Disease Prediction. In: Garg, D., Narayana, V.A., Suganthan, P.N., Anguera, J., Koppula, V.K., Gupta, S.K. (eds) Advanced Computing. IACC 2022. Communications in Computer and Information Science, vol 1781. Springer, Cham. <a href="https://doi.org/10.1007/978-3-031-35641-4\_16">https://doi.org/10.1007/978-3-031-35641-4\_16</a>. [Indexed in Scopus], July2023.

#### 02 Achievements

- Consultancy Project: Project Title: Machine learning model to detect closed shops in a mall during working hours Pl: Prof. Priyadarsan Patra (Pro-VC, DIT University), Co-Pls: Dr. Kriti, Dr. Jyoti Rawat Funding Agency: RaSpect Intelligence Inspection Limited, Hong Kong Duration: Jan 2022-May 2022
- One journal publication with undergraduate students (SCIE, Impact factor: 9.588)

# **Advanced Functional Smart Materials**







2019

Became Functional

01

Ongoing Projects 1-UGC -DAE

10

Number of Published Paper

#### About

Advanced Functional Smart Materials Laboratory has been established in the year 2019. The primary goal of this laboratory is to provide state-of-the-art facilities to in-campus and outside users from various universities, academia, industries and society. Our team is currently engaged in the cutting-edge research of soft materials and nanocolloids, green technologies and energy harvesting, double perovskite materials, fuel cell, purification and dye degradation, functional materials, photocatalytic smart surfaces and interfaces, sensors, energy storage devices, carbon nanomaterials and graphene for water purification and mesoscopic transport etc. In this laboratory, we have synthesis facilities such as spin coating unit, ultrasonic bath, hot air oven, centrifugal Unit, hydrothermal reactor, photocatalytic reactors, a complete facility for nanoparticles and nanocomposites/ nanocolloids synthesis.

## Students from AFSM got offer for higher study as follows:

- . Ms. Kanak for master program University of Leeds, UK and University of Glasgow, UK
- . Mr. Bhanu Jai Singh for master program: Toulouse University, France.
- . Dr. Neha Duklan, Post-doctoral fellowship- IIT Guwahati and RRI Bangalore

Dr. Sonam M Mishra

Dr. Natasha Awasthi

Dr. Prayas Singh, Post-doctoral fellowship- Ben Gurion University, Israel

## **Faculty Members**

Dr. Ravi Kumar Shukla

Dr. Samta Manori

Dr. Vikash Narayan Thakur

#### Research Scholars

Ms. Priya Yadav

Mr. Vishwajeet Bachhar

Mr. Vishwajeet Bachhar

# **Materials & Nano Engineering Research**



2019

Became Functional

02

Ongoing Projects 1-UGC -DAE

10

Number of Published Paper

#### About COE - MNRL

COE-Materials and Nano Engineering Research was established in October, 2019. Under the DIT fraternity, this lab is working as a Centre of Excellence (COE) on multidisciplinary research on materials in bulk and at nano scale for various technological applications. A research team of faculties, undergraduate, postgraduate and PhD students is working in different research dimensions such as high K materials, single and multiphase multiferroic, graphene, graphene based composite materials, self-cleaning materials and magnetic materials, etc. Through this COE, the Department of Physics will provide in-house State-of-the-Art facilities to the students for completion of their project works.

## List of Faculty Team

Prof. Manoj Bhatnagar

Prof. Surbhi Sachdev

Dr. Parveen Kumar

Dr. Vishakha Kaushik

Dr. Surjeet Chahal

## Highlights

- Ms. Shriya Subramanyam (BSc. Student) published a paper in high-impact factor journal.
- Ms. Shriya Subramanyam got summer training
   at IISc Bangalore and South Korea.
- Tow ongoing projects one with IUAC (New Delhi) and other under UUC - DAE Scheme.

# Centre for Innovation, Incubation

# Land, Air & Water (Environmental Sustainability)



#### About us

Uttarakhand, a hilly state prone to natural disasters, faces threats from earthquakes, landslides, avalanches, flash floods, climate change, forest fires, human settlement in unstable areas, and river degradation. DIT University has established a Center of Excellence in Land, Air & Water (Environmental Sustainability) to address these environmental issues through research and collaboration.

#### Vision

The vision of this center is to achieve academic excellence in research and innovation, imparting holistic knowledge, providing skilled training in every aspects of dynamic earth and its environment.

## Objective

The center aims to analyze soil and water quality, monitor air pollution, study land use and deforestation, and conduct research using modern tools and GIS techniques at state and national levels.

#### Mission

The center aims to disseminate scientific knowledge, promote research, formulate environmental policies, and collaborate with government agencies and NGOs to protect and sustainably utilize environmental resources.

#### Members

- · Prof. Naveen Singhal
- Dr. Jabrinder Singh

## Highlights

Two papers published.

PhD Scholar: Mr. S P Subudhi working on analysis of temporal & spatial variations of water quality parameters in selected tributaries of ganga in Uttarakhand. Dr. Jabrinder Singh working on Appraisal of environmental streamflow of Rispana with reference to spatio-temporal variation of water quality index and catchment potential.

DIT UNIVERSITY 103 Annual Report 2023-24

## Centre for Innovation, Incubation

# Entrepreneurship and Startups (CIIES)

#### About us

Centre of Innovation, Incubation, Entrepreneurship and Start-up (CIIES), was established with a vision "To promote innovation and convert into technology based entrepreneurship among the Faculty, Staff, Research Scholars, Students at DIT University and creating value added jobs & services" and a mission "To provide ecosystem and infrastructure for the startups to make sustainable, scalable and profitable Business".



#### Institution Innovation Council (IIC)

- IIC have organized several workshop/seminar/ webinar/panel discussions from 2023-24 to promote the Innovations, Entrepreneurship, Startup and IPR Activities.
- IIC have organized several workshop / seminar / webinar / panel discussions from 2023-24 to promote the Innovations, Entrepreneurship, Startup and IPR Activities

#### Technology Business Incubator (TBI)

- DIT-Technology Business Incubator was recognized by Start-up Uttarakhand and MSMEs, Government of India.
- Developed TBI-Operating manual for transparency and consistency. Presently, there are 10 startups for pre incubation/ incubation support.

#### Intellectual Property Rights (IPR) Cell

- Intellectual property rights policy was also established in DIT University. IPR cell is organising inspiring awareness sessions on IPR and providing support through policy, financial, legal and facilitation.
- As per the guidelines of Innovation cell of MoE KAPILA Committee is constituted to review and approve
  patent applications submitted.
- On an average 100 patents are filled/published every year.

## Student Club, CIIES

To inculcate the entrepreneurship, startups, event organizing, communication and several other skills, an active core team of students across the departments has been formed. Mr. Pradhum Srivas, B.Tech CSE was nominated as student coordinator of the student club in AY 2023-24.

# Centre for Innovation, Incubation

# **Entrepreneurship and Startups (CIIES)**

## **Events Organized by CIIES**

In AY 2023-24, CIIES has organized several events in a direction to create ecosystem for Innovation, Entrepreneurship, IPR and Start-ups as per the requirement of Innovation Cell, Ministry of Education, Government of India.





#### **Achievements**

Startup Hypekar Pvt. Ltd is recognized as a recognized startup by startup Uttrakhand in AY2023-24.

# **Central Events**



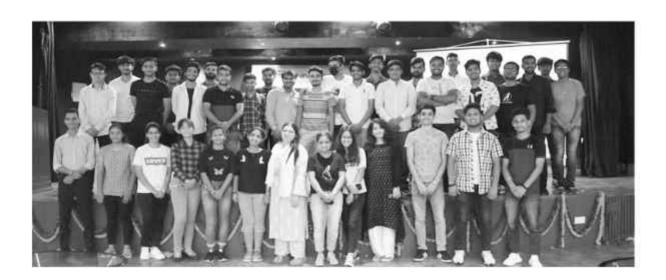
All power is within you. Believe in that, do not believe that you are weak... Stand up and express the Divinity within you.

# Sustainability

# **Initiatives**



DIT University is committed to achieve this goal by providing necessary education, free access of healthcare services, awareness campaign and collaborative research work with Government and Non-Government agencies.



## **Activities**

25 Activities on Good Health and Well-being were conducted in relation to SDG 03, under different MOUs, in collaboration with;

National Health Institution and outcomes FRI Blue Circle Medi Services Pvt Ltd	03	Collaborations
World Hypertension Day convened by Dr Rajeev Kumar Sharma	200	Students & Faculty Participated
World Mental Health Day Mental Health in an unequal world convened by Ms. Zainab Faruqui	150	Students & Faculty Participated
Menstrual Hygiene Management convened by DIT Infirmary	40	Students & Faculty Participated

# Sustainability

## **Initiatives**



DIT University promotes this objective through its policy of sustainable water usage, reuse of waste water, conservation principle and promoting same through research and outreach activities.



## **Activities**

08 Activities Related to SDG 06: Clean Water and Sanitation were conducted

New Trends in the field of Chemistry, Environment and Education Policy (NTFCEP2021) convened by Dr. Tarumay Ghoshal

45 Collaborations

Water conservation and Environmental Awareness convened by Dr. Tarumay Ghoshal

45 Students & Faculty Participated

World Water Day convened by Dr. Brajlata Chauhan

36 Students & Faculty Participated

Application of Al-ML for analysis of Environmental and Climate data convened by Mr. Rohin

35 Students & Faculty Participated

# Sustainability

## Initiatives



DIT University is in line with SDG 7 in making buildings with efficient energy rating appliances, using solar power at maximum usage, minimizing energy wastage and promoting new developments in green energy through research and collaboration activities.



## **Activities**

09 Activities Related to SDG 07: Clean Water and Sanitation were conducted.

Awareness Program on Electric Vehicles convened by Dr. Nafees
Ahamad

Biofuel and its relevance on Environment convened by Dr.
Tarumay Ghoshal

How to plan Financials for successful Start-up & Fraud Prevention

Collaborations

Students & Faculty Participated

Students & Faculty Participated

Collaborations

Students & Faculty Participated

Students & Faculty Participated

Collaborations

Students & Faculty Participated

# I Sustainability

# **Initiatives**



On World Environment Day, our esteemed Vice Chancellor, Prof. G. Raghurama, took a significant step towards promoting sustainability and environmental conservation. Together with the campus community, he participated in a tree-planting initiative.

# Glimpse of events



Tree Plantation for Soil water retention and Green Environment SDG-6



120 students participated in Awareness Program on EV convened by Dr. Nafees Ahamad In Collaboration with The Doon Global School



Awareness on Environmental and Energy Sustainability convened by Dr. Nafees Ahamad SDG-7



Letter of Understanding with Solangaon convened by Dr Rajeev Kumar Sharma SDG-3

# **NCC Achievements**





Lt. Dr. Brajlata Chauhan

Certificate of Excellence

EX- Anubhav, Institutional training at Ota Gwalior



Suo Nikita Bronze medalist at All India Karate Championship 2024



SGT Deepika Rawat Gold medal for master of Ceremony Best Cadet at ATC (2024)

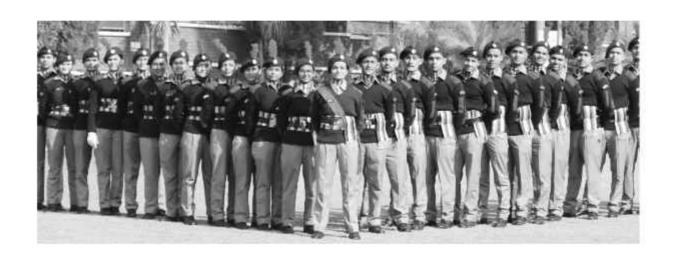


UO Madhu Yadav All India Thal Sainik Camp (2023) 1st Position in Tent Pitching



CPL Sheetal Bhati 3rd Position in Quiz Competition at ATC (2024)

# **NCC Achievements**





Lt. Dr. Jabrinder Singh
Associate NCC Officer 29 UK BN
Achieve A - grade in Pre-commission and refresher
courses (2021 & 2024)



Cadet - Prakash Ranjan

Batch - 2021-24

Recommended for Indian Army Through Technical
Entry Scheme 47 Securing AIR-65



UO Ankit Raj Kumavat Batch - 2020-23 Recommended for Indian Army, Air force, Navy 4 times



SUO Nayan Raj Batch - 2021-24 Attended Youth Exchange Program 2024 at Maldives



Sergeant - Ayush Singh Rawat Batch - 2022-25 National Camp Thal Sainik Camp 2024 through Health and Hygiene event

# **World Environment Day**

# **NSS Activities**



# Report on World Environment Day -2024

On 5th June 2024, the World Environment Day, DIT University organized a grand event to promote environmental awareness and sustainability. The day began with a plantation drive led by university officials, followed by various activities throughout the day. Students from DIT College of Nursing and Healthcare Professions participated in the events. The overall aim was to foster a greener and more sustainable campus.



# Student's Club

Clubs have divided into 11 disciplines. Under each discipline there are various clubs. Total 37 clubs which are run by the students, various operating under the careful supervision of dedicated faculty advisors. These clubs serve as vibrant hubs of learning and collaboration and every year these clubs conduct, a wide array of events that cater to diverse interests and skill levels. Among the standout events are the Cyber Security Master Class, the Introduction to Web3 Wizard, Wave the Web, the API Fundamentals Workshop. These events not only enrich students' academic experiences but also equip them with the practical skills necessary for thriving in the ever-evolving digital landscape.

Designing	Media & Publicity - Publication
SOET	Health & Fitness
Societies & Clubs Under DSW	EECE
Literacy Pursuits	Computer, IT, ICT, Programming
Cultural	( PIT - STOP ) Shop
Social Welfare & Environment	

# Club & Societies 2023-24

#### 1. EECEE

- · IEEE
- · IETE-SF
- · SPIE-Student Chapter
- · SPE ICEIT

#### 3. Designing

· PentaChrome

#### 5. Societies & Club Under DSW

- · NCC DITU 29K
- NSS DITU
- MGAMBIT Club
- SPE CLUB

#### 6. Literacy Pursuits

- · Debating Society
- · Clickrrati Literrati Club
- · Spic Macay
- · PDC
- · Research Club
- · DIT MUN Society

## 8. (PIT - STOP) Shop

· SAE Collegiate Club

#### **10. SOET**

. Engineering and Technology Club

#### 2. Health & Fitness

- · Red Ribbon
- · Aarogya Club
- · Youth Red Cross
- · Fitness Club

#### 4. Computer, IT, ICT, Programming

- CSI DITU
- ACM
- · API
- CGC
- · Code GenX
- · Tech Live Club
- · Microsoft Student Community

## 7. Media & Digital Publicity

- Shutterbug
- · Editorial Board (Pratibimb)
- · Editorial Board (Aarohan)

#### 9. Social Welfare & Environment

- · Global Peace Foundation
- · Science Club
- · Prithvi Club
- · Samarthya

#### 11. Cultural

- Mesmeronica
- Vegabond

## The Debating Society

The 6th Shri Naveen Agarwal Ji Memorial Inter-Branch Debate Competition was organized on 20th January 2024. It was centred around the counselling theme, Uttarakhand call for Land Laws: Intoxication of Development or crty of nature.





## Research Club

Research Club and Teaching Learning Centre, DIT University had organised an expert talk session on "How to Write a Research Proposal or Project for Funding" on 22nd September 2023 for the faculty members, Ph. D. research scholars.

## Clickrrati Literrati

Clickrrati Literrati, the Literature club of DIT University, celebrated the HINDI SAPTAH with zeal and pride by organising Sa Re Ga Ma Pa an Antakshari event on 13th September 2023.





## **DIT Model United Nations**

DIT Model United Nations orchestrated a compelling United Nations Human rights council on January 27,2024.





#### GPF

On Saturday, April 13th, 2024, the Global Peace Foundation (GPF) chapter at DIT University organized a spiritual excursion to the ISKCON Temple in Dehradun

#### IEEE

Android Craft was organized on 14TH Feb 2024. The event aimed at teaching the participants about basics of Android Development through Kotlin. It was a power-packed 2 hours workshop.

## Last Minute C

"Last Minute-C" at CodeGenX DITU covered C programming basics with 70+ participants, featuring hands on exercises and interactive Q&A. The event focused on C control structures, including loops and conditionals, with 55+ participants, providing practical insights and efficient coding tips.

## **Technohunt (Technical Treasurehunt)**

The "Technohunt" event in Ved326 brought participants, CGC members, and onlookers together in a challenging treasure hunt, where solving tech puzzles led to victory. The event significantly impacted the CGC community.

#### Weave the Web

"Weave the Web" workshop successfully equipped participants with key skills in modern web development, showcasing their commitment to fostering knowledge and growth in the field.

## **API Fundam Entals Workshop**

The workshop taught students about APIs and Postman, featuring guest speakers from AWS and Google Developer Groups Dehradun. With support from Postman and participation from UPES students, the event successfully fostered community and skill development.



## **Murder Mystery**

The "Murder Mystery" event in workshops 101 & 103 brought participants together to solve thrilling murder cases. They searched for clues, played characters, and aimed to catch the murderer— or let the murderer win by remaining undetected.

## **Engineer's Shark Tank**

The "Engineers' Shark Tank" at Chanakya Seminar Hall featured dynamic presentations and feedback from Prof (Dr.) Ishan, inspiring participants with valuable insights and encouragement.

## Introduction to Web3 (Web3 Wizardry)

The "Web3 Wizardry" event, hosted by Spheron Network and CodeGenX DITU, offered insights into decentralized tech and version control, featuring Blockchain and GitHub. Attendees gained knowledge from expert speakers, enjoyed prizes and swag, and experienced high enthusiasm for Web3 Technology.





## Retrospect 23"

The 2023 gaming event "Retrospect" at the University brought together gaming enthusiasts, CGC members, and onlookers in an electrifying atmosphere. Coordinated by Kislay Mishra and Varun Kumar Ruhella, the event showcased the creativity of budding engineers.

# Sphurti 2024

# **Annual Sports**

Sphurti, the annual sports fest of DIT University, Dehradun, has grown from 32 teams in 2014 to 118 teams in 2024, featuring sports like badminton, basketball, table tennis, volleyball, football, and cricket. The event took place from March 13-15, 2024, with over 650 matches held. Winners included the Institute of Technology & Management, Dehradun, IMS Unison University, Meerut Institute of Technology, University of Lucknow, and the University of Petroleum Energy Studies. Sphurti-2024 successfully brought together students, athletes, and faculty, celebrating sportsmanship, teamwork, and competition.









# 7th Convocation, 2023

## 1263 Degrees Awarded

7 th Convocation of DIT University, held on December 2, 2023. The occasion was graced by Prof. Parag Shah, Founding Chairman of FLAME.



## **Alumni Award**



#### Col. Ankur Garg

Col Ankur Garg (Shaurya Chakra), BE Mech 1999-2003, DIT alumnus, joined the Indian Army after clearing SSB and medicals. He joined the Indian Military Academy for training after his final year



## Mr. Kapil Verma

Mr. Kapil Verma, Mechanical Engineering student at DIT University (2013-17), led the BAJA Team, joining Siemens after graduation and becoming the Sales Bid Manager of the Middle East and India.



# **Alumni**

# **Chapter & Events**

DIT Alumni chapter has more than 19000+ Connected DITES from across the world.

# **Total Chapters**

Delhi NCR Chapters

Bangalore Chapter

US Chapter Alumni

London UK Chapter Alumni

Australia Chapter

## **Event Detail**

Bangalore meet was held in 15 June ,2024 at iron hills Bangalore Total number of Alumni attended was 43 in the Event It was First Alumni Meet after Covid



# **Our Alumni Stalwart**



DIPENDER SINGH

Associate Consultant at HCL Technologies, Ghaziabad BTECH IT ,2005



**ABHISHEK JAIN** 

Cash Management Banker, Bangalore BTECH CSE, 2005



**ANJUM QUADRI** 

B.Tech. in Electrical Engineering, 2016 Deutsche Börse ,Riyadh



RAHUL DHAMI

BTECH EEE,2018 Resource Deployment Executive at Integration International Inc., Parsippany, CANADA



SAKET KUMAR

B.Tech. in Petroleum Engineering,2018 Reservoir Engineer at Drillinktech International LLC, Calgary, CANADA



**ASHUTOSH NAWANI** 

Head of Financial Risk Advisory at PricewaterhouseCoopers Limited BTECH IT, 2003

# **Other Activities**

## Independence Day

The 77th Independence Day at DIT University featured a flag hoisting by Vice Chancellor Prof. G Raghurama, a disciplined NCC battalion, and a vibrant Tiranga Yatra by NSS volunteers. Sweets were distributed by the Vice Chancellor and Pro Vice Chancellor, with notable figures including Prof. Priyadarshan Patra and Dr. Rakesh Mohan attending the patriotic event.





## Teacher's Day

On September 5th, DIT University celebrated faculty achievements with awards distributed by senior leaders, including Chancellor N. Ravi Shankar. The event, attended by key figures like Dr. Samuel Earnest and Dr. Prakash Tiwari, honored faculty for their teaching and research contributions.







#### Deeksharambh 2023

On the first day of the Deeksharambh 2023 student Orientation Program , All new students were warmly welcomed by DIT University to begin their journey towards excellence. Welcome Address by Vice Chanceller DIT University, Guest & Dignitaries lecture sessions were the mail highlights of the day.





#### International yoga day

World Yoga Day was celebrated with great enthusiasm on our campus, with students and faculty coming together to embrace wellness and inner peace through the ancient practice of yoga.





## Youthopia 2023

Youthopia at DIT University featured a vibrant mix of events: a cultural night, DJ night with DJ Johnnie Ernest, and a finale with **NAKASH AZIZ**. The three-day fest showcased music, dance, fashion, and sports, highlighting the students' efforts in making the event a succes





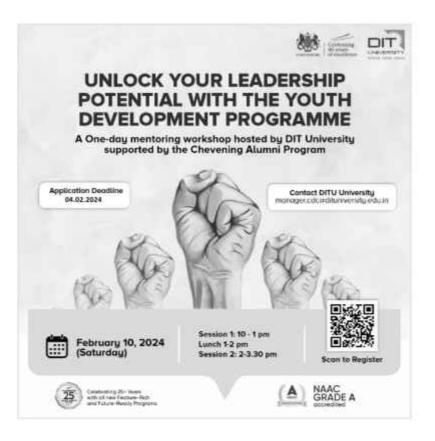




#### IDP Fair Organized by Career Development Cell

DIT University organized an IDP Fair on January 29th, 2024, allowing students to explore international education opportunities. The event connected students with representatives from various institutions, offering insights into academic programs, application procedures, and scholarships. The event saw significant student participation, seeking advice on courses, career prospects, and admission processes. The Career Development Cell of DIT University emphasized the university's commitment to supporting students in their career development and global education aspirations.

#### The Youth Development Programme



Activities	Dates
Budget Dialogues: Live Broadcast and Discussion	1 st and 2nd Feb 2024
Workshop on Leadership and Management Skills	12th September 2023
Field Trip to The Regional Science Centre, Dehradun	14th February,2024
Environment Day Celebrations	5th June, 2023
Green Trails Plantation Drive	26th August, 2023
National Pharmacy Education Day	6th March, 2024
62nd National Pharmacy Week Celebrations	22nd November, 2023
World Pharmacist Day	25th September, 2023
Free dental Health Camp	19th April, 2023



# Research & Collaboration Overview



Purity, patience and perseverance overcome all obstacles.
All great things must of necessity be slow.

300+

40 Patents

20 Patents

**Publications** 

Published

Registered

DIT Faculty Listed In Top 2% of Research Scientist Globally Dr. Neeraj Kumar Sethiya & Dr. Sabhya Sanchi Das

## School of Architecture and Planning

- Gopika Krishnakumar, Akhilesh Kumar & Seema Praliya, "Utilizing Solid Waste as Building Materials in Architectural Applications: A Global Trend Analysis" in the National Conference titled Planning and Architecture for Hill Region PAHR - 2024, held on 15th - 16th May 2024, organized by the Department of Architecture and Planning, NIT, Hamirpur.
- Akhilesh Kumar, "Introduction Impact of Water Management in Institutional Campuses: Case of Indian Institute of Technology Roorkee", October 2023, Conference: Urban Interventions: Environmental, Social and Economic (Proceedings) ui-ese.arch, NIT, Raipur
- Akhilesh Kumar, "Smart city planning in India A case of Dehradun city" October 2023, DOI: 10.4324/9781003450221-1, In book: i-Converge: Changing Dimensions of the Built Environment
- 4. Akhilesh Kumar "Zero waste management approaches and strategies for DIT University Dehradun campus" October 2023, DOI: 10.4324/9781003450221-2 In book: i-Converge: Changing Dimensions of the Built Environment
- J. K. Sarohi, A. K. Sharma and R. K. Saini, "Energy Consumption Pattern and its Impact on Urban Habitat," IEEE International Conference on Image Information Processing (ICIIP), Solan, India, 2023, pp. 261-264, doi: 10.1109/ ICIIP61524.2023.10537670
- Praliya Seema, "Analysing Impact of Changing Environmental Conditions on the Health Status for people of Uttarakhand" in ICoSOAPD 2024:3rd International Conference on "Opportunities and Challenges for resilient Future", April 22 – 24, 2024 organised by School of Architecture, Planning and Design, DIT University, Dehradun.
- Praliya Seema, "Climate resilience as the future trend of city planning, Case of Indian Cities" in ICoSOAPD 2024:3rd International Conference on "Opportunities and Challenges for resilient Future", April 22 – 24, 2024 organised by School of Architecture, Planning and Design, DIT University, Dehradun.

#### School of Computing

 Verma, G., & Kanrar, S. (2024). Secure Keyword Search over Encrypted Cloud Data Using Blockchain in Digital Document Sharing. Wireless Personal Communications, 134(2), 975-996. DOI: https://link.springer.com/ article/10.1007/s11277-024-10947-1 (SCIE, Q2, IF-2.2)

- Singal, M., & Verma, G. (2024). Hybrid Load Balancing Technique for Cloud Environment Using Swa rm Optimi z a tion. The Re v i ew of Soc ione twor k S tra t egi e s, 1-17. DOI: https://link.springer.com/article/10.1007/ s12626-024-00160-8 (WoS, IF-1.3)
- Maithani, A., & Verma, G. (Nov. 2023). Hybrid model with improved score level fusion for heart d is e a s e c l a ssifi
  c a ti o n. Mu ltime d i a To o Is a n d Ap p l i c a ti o n s, 1 3 7. DOI: https://link.springer.com/article/10.1007/s11042-023-17599-6
- Verma, G., & Kanrar, S. (Oct 2023). Load balancing model for cloud environment using swarm intelligence technique. Multiagent and Grid Systems, 19(3), 211-229. (WoS, ESCI, IF=1.0) DOI: https://content.iospress.com/ articles/multiagent-and-grid-systems/mgs230021
- Kumar, A., & Verma, G. (Oct 2023). Secure Cloud Data Access: Unifying Quantum Key Distribution and Attribute-Based Encryption for Enhanced Data Protection. SN Computer Science, 4(6), 803. (Scopus, Q2, cite score – 4.3) DOI: https://link.springer.com/article/10.1007/s42979-023-02285-z
- Verma, G., Kumar, A., & Dixit, S. (Sep 2023) Early detection of tuberculosis using hybrid feature descriptors and deep learning network. Polish Journal of Radiology, 88(1), 445-454. (WoS, Scopus, Q3, IF=1.2) https:// doi.org/10.5114/pjr.2023.131732
- Kumar, A., Verma, G. (Aug 2023), Securing cloud access with enhanced attribute-based cryptography. Computing. (SCIE, Q2, IF=3.2) https://doi.org/10.1007/s00607-023-01212-7
- Verma, G., Kanrar, S. (July 2023). Secure document sharing model based on blockchain technology and attributebased encryption. Multimedia Tools and Applications , 1-18, (SCIE, Q1, IF=3.6), DOI: https://doi.org/10.1007/ s11042-023-16186-z
- Gaurav Dhiman, Karki Bhishma, Partha Sarkar, Gaurav Srivastava, and Manoj Kumar (Sep. 2023) "Platinum Diselenide and Graphene-Based Refractive Index Sensor for Cancer Detection," Plasmonics (Norwell, Mass.), DOI: https://doi.org/10.1007/s11468-023-02051-0., [Indexed in Web of Science], [IF: 3] (Q3 Category Journal).
- 10. Gaurav Dhiman, Pal, Amrindra, Arun Uniyal, Partha Sarkar, Gaurav Srivastava, Hira Lal Yadav, Sofyan A. Taya, and Arjuna Muduli (Sep. 2023) "Detecting Binary Mixtures of Sulfolane with Ethylene Glycol, Diethylene Glycol, and Polyethylene Glycol in Water Using Surface Plasmon Resonance Sensor: A Numerical Investigation," Plasmonics (Norwell, Mass.), DOI: https://doi.org/10.1007/s11468-023-02054-x, [Indexed in Web of Science], [IF: 3] (Q3 Category Journal).
- Gaurav Dhiman, Bhishma Karki, Amrindra Pal, Partha Sarkar, Arun Uniyal, Ram Bharose Yadav (Dec. 2023), "Detection of Chikungunya Virus Using Tantalum Diselenide (TaSe2)-Based Surface Plasmon Resonance Biosensor," Plasmonics (2023), DOI: https://doi.org/10.1007/s11468-023-02169-1 [Indexed in Web of Science], [IF: 3] (Q3 Category Journal).
- Kaur, P., & Kumar, N. (2023). BRIEFBCS: binary robust independent elementary features based fuzzy vault scheme in BCS. Cluster Computing, 1-14. DOI: https://doi.org/10.1007/s10586-023-04134-3 (SCI, Q1, IF-4.4)
- Kaur, P., & Kumar, N. (2023). SIFTBCS: scale invariant feature transform based fuzzy vault scheme in b i ome tri c c r y p t o s y st em. Mu Itime d i a To o Is a n d Ap p I i c a ti o n s, 1 - 2 2 . DOI: ology https://doi.org/10.1007/ s11042-023-16643-9 (SCIE, Q1, IF- 3.6)

DIT UNIVERSITY 131 Annual Report 2023-24

- 14. A.N.Tripathi, B. Sharma (2024) "Adaptive Neuro-Fuzzy Modeling for Traffic VolumePrediction" Journal of Propulsion Technology, Vol. 45 No. 1 (2024), 3927-3938, DOI:https://www.propulsiontechjournal.com/index.php/journal/article/view/4998 [Indexed inScopus] [Q3] Feb 2024.
- P. Gupta, P. S. Rawat, D. kumar, A. Vidyarthi, & M. Alharbi, "Neural network inspired differential evolution based task scheduling for cloud infrastructure" Alexandria Engineering Journal, 73: 217- 230. DO: https://doi.org/10.1016/ j.aej.2023.04.032, [Indexing: SCIE], [IF-6.8], [Quartile 1], May 2023.
- Rawat, P.S., Barthwal, A. LANDSLIDE MONITOR: a real-time landslide monitoring system. Environ Earth Sci 83, 226 (2024). https://doi.org/10.1007/s12665-024-11526-0 [Indexing: SCIE], [IF-2.8], [Quartile 1], April 2024.
- Pandey, M.C., Rawat, P.S. Virtual Machine Provisioning Within Data Center Host Machines Using Ensemble Model in Cloud Computing Environment. SN COMPUT. SCI. 5, 690 (2024). https://doi.org/10.1007/s42979-024-03056-0 [Indexing: Scopus], [Quartile 1], July 2024.
- Rawat, P.S. Virtual Machine Allocation Using Optimal Resource Management Approach. Wireless Pers Commun (2024). https://doi.org/10.1007/s11277-024-11465-w , [Indexing: SCIE], [IF-1.9], [Quartile 1], July 2024
- 19. Patel, S., & Pathak, H. (2023). Improvising QoS through Cross-Layer Optimization in MANETs. In ternation all Journal of Computer Network & Information Security. DOI: https://doi.org/10.5815/ijcnis.2023.06.05, [indexed in Scopus], [Quartile 1]
- Bhushan, M., Vyas, S., Mall, S., & Negi, A. (2023). A comparative study of machine learning and deep learning algorithms for predicting student's academic performance. International Journal System Assurance Engineering and Management, 1-10. DOI: https://doi.org/10.1007/s13198-023-02160-3 [Q3 Journal]
- Rathee, G., Saini, H., Shandilya, S. K., & Rajasoundaran, S. (2024). A trusted and adaptive security mechanism for wearable e-healthcare systems. International Journal of Ad Hoc and Ubiquitous Computing, 45(1), 3-10. DOI: https://doi.org/10.1504/IJAHUC.2024.136136 (SCOPUS/SCIE/WoS/Q3; Impact Factor: 0.7)
- Prakash, C., Barthwal, A. & Acharya, D. An IoT-based system for monitoring and forecasting flash floods in realtime. J Earth Syst Sci 132, 159 (2023). https://doi.org/10.1007/s12040-023-0172-4.

#### School of Engineering and Technology

- Ghoshal, T., & Chakraborty, A. (2023). Regional Ocean Modeling System (ROMS) Simulations to Identify the Sensitivity of Forcing Conditions on the Thermohaline Features of the Bay of Bengal. In Sustainable Environmental Engineering and Sciences: Select Proceedings of SEES 2021 (pp. 33-43), Singapore: Springer Nature Singapore.
- Subudhi, S. P., Kansal, A., Pandey, P., Dhiman M., Ghoshal, T., & Singhal, N. (2023). Analysis of heavy metal contamination and valuation of sediments quality of Ganga River tributaries due to the discharge of waste water from vehicle service centre. European Chemical Bulletin. (Journal Paper). (Accepted).

DIT UNIVERSITY 132 Annual Report 2023-24

- Subuddhi, S. P., Kansal, A., Pandey, P., Ghoshal, T\*., & Singhal, N. (2023). Impact Examination of the Lockdown on the Status of the Heavy Metal Pollution Index and Health Risk of Ganga River Water Quality. Environmental Engineering Research, 28(5).
- Acharyya R, Dey A (2024) Application of MGGP in Predicting Bearing strength of a Strip Footing Resting on the Crest of a Marginal Soil Hillslope. KSCE Journal of Civil Engineering (Accepted)
- Acharyya R(2023) Evaluation of Overall Response of Driven Pile in Multi-layered Soil. Transportation Infrastructure Geotechnology 1-17. DOI: 10.1007/s40515-023-00354-7.
- Acharyya R, Dey A (2023) Response of Skirted Strip Footing Resting on Layered Granular Soil Using 2- D Plane-Strain Finite Element Modeling, Geotechnical and Geological Engineering 41(3): 2185-2200.
- Rohit Maheshwari, Binay Kumar Singh & Rui Marques (2023). Seismic Performance of Confined Versus Unreinforced Masonry Buildings on Hilly Slopes Using Linear Static and Dynamic Analysis Approaches. Arabian Journal for Science and Engineering, http://dx.doi.org/10.1007/s13369-023-08046-7.
- Rohit Maheshwari, Binay Kumar Singh & Rui Marques (2023), Procedures for seismic assessment of confined masonry versus URM and RC-framed buildings in hilly regions: Critical analysis and application of the new Indian codes, Journal of Building Pathology and Rehabilitation, https://doi.org/10.1007/s41024-023-00342-x
- Keshri, D., Sarkar, K. & Chattoraj, S.L. Landslide susceptibility mapping in parts of Aglar watershed, Lesser Himalaya based on frequency ratio method in GIS environment. J Earth Syst Sci133, 1 (2024). https://doi.org/10.1007/s12040-023-022
- Kunwar Dipendraditya, B.K Singh, Performance of Bacillus Cohnii Added Microbial Concrete, Civil Engineering and Architecture, Vol.11, No.1, pp.525-530, 2023. DOI: 10.13189/cea.2023.110141
- Kunwar Dipendraditya, B.K Singh, Performance of Bacillus Subtilis Based Microbial Concrete in Acidic Environment, Civil Engineering and Architecture, Vol.11, No.6, pp. 3754-3762, 2023. DOI: 10.13189/cea.2023.110637.
- Nafees Ahamad, Afzal Sikander, Pankaj Kumar Jha, "A New Optimal Control Design Framework and Stabilization of a Gimbal Payload System Using Meta-heuristic Algorithm", Wireless Personal Communications, May 1, 2024, pp. 1-19, https://doi.org/10.1007/s11277-024-11083-6 (Q2, IF = 2.2, SCI)
- Saurabh Awasthi, Gagan Singh, and Nafees Ahamad. "Fault Identification in Distributed Generation System Using Shallow ANN Model." Journal of The Institution of Engineers (India): Series B, Nov 29, 2023, pp 1-15, https://doi.org/10.1007/s40031-023-00942-8, (Q3, SJR 0.3, Scopus).
- BP Saripalli, G Singh, S Singh, (Nov 2023)"A simplified three-diode model for photovoltaic module: cell modeling and performance analysis", - World Journal of Engineering, ISSN: 1708-5284, https://doi.org/10.1108/ WJE-02-2023-0039. (Q3 Category Journal)
- BP Saripalli, G Singh, S Singh, (Aug 2023) "Supercapacitors based energy storage system for mitigating solar photovoltaic output power fluctuations", World Journal of Engineering, Vol. 20 No. 5, pp. 815- 834.https:// doi.org/10.1108/WJE-08-2021-0468 (Q3 Category Journal).
- Awasthi, S., Singh, G., & Ahamad, N. (2023). Identification of type & location of a fault in a distributed generation system. International Journal of Computing and Digital Systems, 14(1), 1- 1http://dx.doi.org/10.12785/ijcds/140104. (Q3 Category Journal)

DIT UNIVERSITY 133 Annual Report 2023-24

- 17. Awasthi, S., Singh, G., & Ahamad, N (2023). Fault Identification in Distributed Generation System Using Shallow ANN Model, J. Inst. Eng. India Ser. B, https://doi.org/10.1007/s40031-023-00942-8. (Q3 Category Journal) Sandhya Kumari , Sreenu Sreekumar , Ankur Rana , Sonika Singh, (Mar 2024) "Wind power deviation charge reduction using long short term memory network", e-Prime Advances in Electrical Engineering, Electronics and Energy, Elsevier, https://doi.org/10.1016/j.prime.2024.100473, Scopus, Citescore:1.5(Q3 Category Journal)
- Kumari, S. ., Sreekumar, S. ., Singh, S. ., & Kothari, D. P. . (Nov 2023). Wind Power Deviation Charge Reduction using Machine Learning. Distributed Generation & Amp; Alternative Energy Journal, 39(01), 27–56. https://doi.org/10.13052/dgaej2156-3306.3912. (Q4 Category Journal)
- V. K. Gupta, K. Choudhary, and S. Kumar, (Mar 2024) "SMS Fiber Structure-based Enzymatic Sensor Probe for Uric acid Detection using Gold Nanoparticles and Graphene Oxide," IEEE Sens. J., doi: 10.1109/JSEN.2024.3373761 (Q1 Category Journal)
- A. Kumari, K. Choudhary, V. Vyas and S. Kumar, (Mar 2024) "Graphene Oxide-Based Surface Plasmon Optical Fiber Biosensor for Thiamine Detection," inIEEE Transactions on Plasma Science, vol. 52, no. 3, pp. 809-815, March 2024, doi: 10.1109/TPS.2024.3380396 (Q2 Category Journal)
- Bangi Bala Subbanna, Kuldeep Choudhary, Sonika Singh and Santosh Kumar, (Feb 2024) "An Experimental Approach for the Detection and Analysis of Ascorbic Acid Using Optical Fiber-Based Biosensor with LSPR," Plasmonics, https://doi.org/10.1007/s11468-024-02240-5 (Q3 Category Journal)
- Shikha Uniyal, Kuldeep Choudhary, Surbhi Sachdev, Santosh Kumar, (Jan 2024) "Nano-bio fusion: Advancing biomedical applications and biosensing with functional nanomaterials," Optics & Laser Technology, Vol. 168, ISSN 0030-3992, doi.org/10.1016/j.optlastec.2023.109938 (Q1 Category Journal)
- Satyendra Jain, Kuldeep Choudhary, Amit Kumar, Carlos Marques, Santosh Kumar, (Jan 2024) "(Invited paper) PCF-based plasmonic sensor for the detection of cervical and skin cancer cell," Results in Optics, Vol. 14, ISSN 2666-9501, https://doi.org/10.1016/j.rio.2023.100589 (Q3 Category Journal)
- Jain, S., Choudhary, K. & Kumar, S., (Oct 2023) "Novel Materials-Based Photonic Crystal Fiber Sensor for Biomedical Applications," Plasmonics, https://doi.org/10.1007/s11468-023-02100-8 (Q3 Category Journal)
- Awasthi, S., Singh, G. & Ahamad, N. Classifying Electrical Faults In A Distribution System Using KNearest Neighbour (KNN) Model in Presence of Multiple Distributed Generators. J. Inst. Eng. India Ser. B(2024). https://doi.org/10.1007/s40031-024-00994-4. (Q3 Category Journal)
- 26. Ashish Kumar Verma, Rahul Singhal, "Investigations on relevance of angular stability and polarization independence of frequency selective reflector in planar antenna gain enhancement" Journal of Electromagnetic WavesandApplications, 2024, 1-20. https://doi.org/10.1080/09205071.2024.2350451. (Q3 Category Journal)
- Ashish Kumar Verma, Rahul Singhal, "Gain Enhancement of Triangular Slot X-band Antenna Using Rhombic Loop Frequency Selective Surfaces" Wireless Pers Commun 135, 517–530 (2024). https://doi.org/10.1007/s11277-024-11080-9 (Q2 Category Journal)
- Ashish Kumar Verma, Rahul Singhal, "Gain enhancement of ultra-wideband hexagonal slot antenna using tessellated rhombic loops based reflector" Frequenz, vol. 78, no. 5-6, 2024, pp. 259-270. https://doi.org/10.1515/freq-2023-0183(Q3 Category Journal).

DIT UNIVERSITY 134 Annual Report 2023-24

- 29. Ashish Kumar Verma, Rahul Singhal, Performance analysis of frequency selective reflectors based on rectangular loop pair for wideband applications, AEU - International Journal of Electronics and C o m m u n i c a t i o n s , V o I u m e 1 6 7 , 2 0 2 3 , 1 5 4 6 7 5 , I S S N 1 4 3 4 - 8 4 1 1 , https://doi.org/10.1016/j.aeue.2023.154675. (Q2 Category Journal)
- Karanpal Singh, Nancy, Monika Bhattu, Gurjinder Singh, Nabisab Mujawar Mubarak, Jagpreet Singh. (2023). Lightabsorption-driven photocatalysis and antimicrobial potential of PVP-capped zinc oxide nanoparticles, Scientific Reports, 13, 1-12, https://doi.org/10.1038/s41598-023-41103-7 (Q1 Category Journal)
- Amardeep Bajwa, Harpreet Kaur, Sanjeev Kumar, Gurjinder Singh. (2023). Excitation-wavelength-dependent photoluminescence/electrical conductivity of copper oxide nanorods, Surface Innovations, 12(5-6), 300-308, https://doi.org/10.1680/jsuin.23.00056 (Q3 Category Journal)
- Uniyal, A., Sarangi, S., Rawat, M.S. (2024). Optimal linear power flow for droop controlled islanded microgrid. International Journal of Electrical Power & Energy Systems, 160, 55 110091, ISSN 0142- 0615, https://doi.org/10.1016/j.ijepes.2024.110091. (Q1 Category Journal)
- A.K. Patil, M. Kumar, "Experimental assessment of entropy generation for pin fin heat sink," Journal of Thermal Analysis and Calorimetry, DOI: https://doi.org/10.1007/s10973-023-12671-7 [Indexed in Web of Science] [IF-3.0], Nov 2023.
- 34. N. Somani, A. S. Walia, N. K. Gupta, J. P. Panda, A. Das, and S. R. Das, "Data driven surrogate modelbased optimization of the process parameters in electric discharge machining of D2 steel using Cu-SiC composite tool for the machined surface roughness and the tool wear," Revista de Metalurgia, vol. 59, no. 2, pp. e242-e242, 2023.
- N. K. Gupta, S. K. Joshi, S. Dhama, and S. Aggarwal, "Enhancing mechanical properties of natural fiber composites: a study on the effects of fiber loading and filler addition," Engineering Research Express, vol. 5, no. 4, pp. 45088, 2023, IOP Publishing.
- N. K. Gupta, N. Somani, G. Nandan, and R. K. Phanden, "Investigation of the mechanical properties of jute and glass fiber reinforced epoxy composite for sustainable and cost-effective applications," International Journal on Interactive Design and Manufacturing (IJIDeM), Jan. 14, 2023, Springer.
- 37. A. Mishra, R. Kumar, A. K. Sharma, N. K. Gupta, and N. Somani, "A statistical analysis on effect of process parameters on tensile, flexural, and hardness characteristics of wood-polylactic acid composites using FDM 3D printing," International Journal on Interactive Design and Manufacturing (IJIDeM), vol. 18, no. 3, pp. 1303-1315, 2024, Springer Paris Paris.
- N. K. Gupta, N. Somani, and G. D. Thakre, "Experimental analysis and investigation on enhanced tribological performance of self-healing Al6061–60Pb40Sn solder alloy reinforcement," International Journal on Interactive Design and Manufacturing (IJIDeM), vol. 18, no. 3, pp. 1267–1278, 2024, Springer Paris Paris.
- M. Bhandwal, N. Chaudhary, M. Arora, P. P. Patil, and N. K. Gupta, "Design and Analysis of Flapping Bird Aerial Robot with Lift and Drag Force," 2023 3rd International Conference on Technological Advancements in Computational Sciences (ICTACS), pp. 144-149, 2023, IEEE.
- J. P. Agrawal, N. Somani, and N. K. Gupta, "A systematic review on powder-mixed electrical discharge machining (PMEDM) technique for machining of difficult-to-machine materials," Innovation and Emerging Technologies, vol. 11, pp. 2440002, 2024, World Scientific Publishing Company.

DIT UNIVERSITY 135 Annual Report 2023-24

- P. S. Chandel, Y. K. Tyagi, N. K. Gupta, and N. Somani, "Enhanced mechanical performance of jute-glass fiber reinforced epoxy composite: Fabrication, analysis, and comparison," Materials Today: Proceedings, 2024, Elsevier.
- Pandey R. Critical analysis of the energy and exergy performance of an air heater duct with perforated 60-degree V-down baffles affixed to the heated surface. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. 28th Feb. 2024; 0(0). https://doi.org/10.1177/09544089241234617 (SCI, WOS) [IF: 2.3, Q2 journal]
- 43. Subodh Kumar, A. S. Shahi, Varun Sharma and Dikshant Malhotra (2024), "Metallurgical, mechanical and corrosion behavior of AISI 304L joints welded using variable arc energy inputs and subjected to thermal aging", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of materials: Design and Applications, (Accepted). (Publisher: SAGE; Impact Factor: 2.5; SCI; Quartile: Q2).
- Subodh Kumar, Vivek Parmar and Varun Sharma (2023), "Effect of welding current on the microstructural and corrosion behavior of GTA welded austenitic stainless steel joints", Materials Today: Proceedings, Article in Press. (Publisher: Elsevier; Scopus; Citation: 01; Quartile: Q2).
- Shikha Pant, Subodh Kumar, A.S. Shahi (2023), "Microstructural Characterization of Super Duplex Stainless Steel Fabricated using WAAM Technique", Materials Today: Proceedings, Article in Press. (Publisher: Elsevier; Scopus; Citation: 02; Quartile: Q2).
- Pankaj Singh Chandel , Y.K. Tyagi , Nitin Kumar Gupta , Nalin Somani ," Enhanced mechanical performance of juteglass fiber reinforced epoxy composite: Fabrication, analysis, and comparison., Materials Today: Proceedings. https://doi.org/10.1016/j.matpr.2024.04.065 [Indexed in Web of Science], April 2024.
- Somani, N., Tyagi, Y.K., Gupta, N.K., "An investigation on the influence of sintering temperature on microstructural, physical and mechanical properties of Cu-SiC composites, Journal of Engineering, Design and Technology, 22(1), pp. 77–88 (2024)
- 48. V. Singh, N. Ruwali, R. K. Pandey, B. Vaferi, and D. A. Wood, (Oct 2023) "Applying a deep-learning surrogate model to simulate and compare achievable oil recovery by different waterflood scenarios", P e t r o I e u m S c i e n c e a n d T e c h n o I o g y , A v a i I a b I e o n I i n e . https://doi.org/10.1080/10916466.2023.2264902 (Q2 Category Journal)
- S Kumar, G Kumar, S Krishna, A Kumar, T Gupta... "Sand screens for controlling sand production from hydrocarbon wells: A mini review", Geoenergy Science and Engineering, 2024. https://doi.org/10.1016/j.geoen.2024.213040
- DTK Dora, SR Devarapu, G Kumar, P Swaminathan Water Treatment Using Engineered Carbon Nanotubes, 2024
   "Synthesis of carbon nanotube aerogel and its application for the removal of organic solvents from water" 2024.
   <a href="https://doi.org/10.1016/B978-0-443-18524-3.00024">https://doi.org/10.1016/B978-0-443-18524-3.00024</a>

## School of Liberal Arts & Management

 Shrish Singh, Vijay Kumar Jain, Hemraj Verma (2024). Exploring the role of consumers' intention in sustainable agriculture through organic foods, International Journal of Sustainable Agricultural Management and Informatics, DOI: 10.1504/IJSAMI.2024.10063754 [Scopu

- Vijay Kumar Jain & Shirish Singh (2024). Disintegrating Myths Related to Organic Food Consumption and Why It Remains the Best Option: A Fuzzy-DEMATEL & ISM-MICMAC Approach Int. J. of Business Innovation and Research [Published] DOI: 10.1504/IJBIR.2024.10064912 [Scopus]
- Vijay Kumar Jain, Pooja Gupta, Shrish Singh, Vijay Prakash Anand, Shubhendra Singh Parihar (2024). Metaversel Intersection with Artificial Intelligence (AI): A Qualitative Study focusing on building Great Customer experience, Int. J. of Internet Marketing and Advertising, DOI: 10.1504/IJIMA.2024.10064392 [Scopus]
- 4. Shrish Singh, Vijay Jain, Hemraj Verma (2024) Modelling Sustainability of Organic Food Consumption for Consumer Well-being using DEMATEL: An MCDM Approach Exploring Indian Perspective, InternationalJournalof BusinessInnovationandResearch, DOI:10.1504/IJBIR.2023.10062721[Scopus]
- Dimri, A., Kumar, P., & Jain, V. K. (2024). Unraveling Job Embeddedness in the Indian Hotel Sector: Investigating Turnover and Retention. Prabandhan: Indian Journal of Management, 17(6), 27-45. [Scopus]
- Manjula Khuble, Pankaj Kumar & Vijay Kumar Jain (2024). Performance Symphony: Unraveling the Moderating Influence of Service and Justice Climates on Employee Engagement and Organizational Performance Journal of Logistics, Informatics and Service Science, DOI: 10.33168/JLISS.2024.0315 [Scopus]
- Shivam Krishn Agrawal, Vijay Kumar Jain, Hemraj Verma (2024). Circular economy! Sustainable growth and achieving zero net emissions a way ahead for building sustainable tomorrow by optimizing consumption, International Journal of Sustainable Agricultural Management and Informatics, DOI: 10.1504/IJSAMI.2024.10062874 [Scopus]
- Kumar, P., Jain, V. K., Dube, P., & Tyagi, V. (2024). Moderating role of the 'type of hotel' on the relationship between human resource practices and job satisfaction in the hotel sector in India: a PLSbased SEM approach. International Journal of Business and Globalization, 36(2-3), 259-275. [Scopus]
- Aditi Dahiya, Vijay Jain, Puja Jain, Vijay Prakash Anand, Shipra Agarwal (2023). Is Responsible Consumption Everyone Business. Why? Understanding Responsible Consumption and its Linkage to Consumer Well-being for Better Tomorrow, International Journal of Business excellence, DOI: 10.1504/IJBEX.2023.10059370 [Scopus]
- Vijay Kumar Jain, Preeti Sharma, Shipra Agarwal, Vijay Prakash Anand (2024). Venturing into metaverse the future of marketing! A qualitative study understanding consumer adoption of metaverse in a digital world, International Journal of Electronic Marketing and Retailing (2024), DOI: 10.1504/IJEMR.2024.10061754 [Scopus]
- Varghese Joy, Vijay Kumar Jain (2024). Quest for Less! Living with Minimalism for Building a Better Sustainable World- A Qualitative Study Exploring Millennials Perspective, International Journal of Sustainable Agricultural Management and Informatics, DOI: 10.1504/IJSAMI.2024.10064305 [Scopus]
- Deepsi Garg, Prakash Tiwari, Vijay Jain (2023). Does Social Media Sentiments Affect Investment Decisions a Moderated Mediation Analysis of the Relationship among Social Media Sentiments, trust, and Investment Decision, Global Business and Economics Review, DOI: 10.1504/GBER.2024.10058158 [Scopus]
- Jain, V.K., Gupta, A. & Verma, H. Goodbye materialism: exploring antecedents of minimalism and its impact on millennials' well-being. Environment, Development & Sustainability (2023). [Q1, Scopus]
- Vijay Kumar Jain, Shrish Singh, Preeti Sharma, Vijay Prakash Anand (2023). Transition from Linear Models to Circular Economies-A Sustainable Model of Consumption by Limiting Environmental Impact for Better Tomorrow, Int. J. of Business Innovation and Research, DOI: 10.1504/IJBIR.2023.10058023 [Scopus]

DIT UNIVERSITY 137 Annual Report 2023-24

- Khulbe, M, Kumar, P., & Jain, V. K (2023). Navigating the Landscape of Employee Engagement through a Comprehensive Literature Review. Empirical Economics Letters, Empirical Economics Letters. [Scopus]
- Khulbe, M., Kumar, P., & Jain, V. K. (2023). A Bibliometric Analysis of Employee Engagement: Explaining the Direction of Future Research. Empirical Economics Letters, 22, 70-88. [Scopus]
- Kumar, P., Prakash, K., Dimri, A., Khulbe, M. and Chandra Mishra, S. (2024), "Using bibliometric analysis to determine the role of cutting-edge technologies in the development of future performance management system", Benchmarking: An International Journal, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/ BIJ-07-2023-0477 [Scopus, Q1]
- Prakash, K., & Tiwari, P. (2023). The aftermath of COVID-19: exploring workplace expectations among GenZ in India, International Journal of Indian Culture and Business Management, 30(2), 196-213. [ESCI]
- Nisha Khan, Dr. Shriya Goyal, Dr. Kiran Mamgain (2024). Domestic Violence against Women in the Name of Set of Beliefs, Culture, and Traditions in 'A Woman is No Man' by 'Etaf Rum'. Journal of Informatics Education and Research Vol 4 Issue 1. [ABDC]
- Nisha Khan, Dr. Shriya Goyal (2024). Difficult Daughter: "A Reflection Of The Struggle Of Women For Autonomy, Independence And Education". Administration: Theory and Practice, 30(4). [Scopus]
- Singh, R., & Husain, A. (2023). Indian validation of Rosenberg's Self-Esteem Scale in Hindi among adults. Mental Health, Religion & Culture, (in press) https://doi.org/10.1080/13674676.2023.2168634
- Upreti, P., Semwal S. 'Brought Through Senses: Exploring Senses as a Gateway to Memories in Gyasi's Homegoing' Perichoresis (2024), Vol. 22(s1), pp. 52–64 (Scopus- Q3)
- D' Rozario, P., Vohra, P., & Mishra, S. K. (2024). Understanding Tibetan Exile: a review of literature and bibliome tricanalysis (1960 - 2021). Asian Ethnicity, 1 – 50. https://doi.org/10.1080/14631369.2024.2346731 (Scopus-Q1)

#### School of Physical Sciences

- Aritra Sen, Debashish Chowdhury, Ambarish Kunwar, "Coordination, cooperation, competition, crowding and congestion of molecular motors: Theoretical models and computer simulations", Advances in Protein Chemistry and Structural Biology (Elsevier), Volume 141, 563-650 (88 pages), 2024; published on 20th January 2024. DOI: https://doi.org/10.1016/bs.apcsb.2023.12.005, (Q1 Category).
- Priya Yadav, Samta Manori, Pankaj Chamoli, Ravi Kumar Shukla, "Photocatalytic degradation of ternary dye mixture using RGO, -Fe2O3 and ZnO based binary and ternary nanocomposites", Inorganic Chemistry Communications, Volume 167, 112791 (June 2024) https://doi.org/10.1016/j.inoche.2024.112791 (Q1 Category Journal)
- Priya Yadav; Samta Manori; Ravi Kumar Shukla, , "Contact Electro Catalysis Driven Degradation of Malachite Green Dye by RGO/ZnO Nanohybrid", Solid State Communications, Volume 389, 115578, (June 2024) https://doi.org/10.1016/j.ssc.2024.115578 (Q3 Category Journal)

- 4. Yogita; Prayas Singh; Samta Manori; Farheen; Havagiray Chitme; Kuldeep Kumar Raina; Ramesh Chandra; Ravi K. Shukla, , "Self-assembled lyotropic liquid crystals from natural surfactant: A study on their structural, rheological and antimicrobial behaviour", Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 696, 134371 (Q2 Category Journal)
- Kanak, Yogita, Prayas Singh, Ashok Manori, Ashwani Kumar, Ramesh Chandra, KK Raina, Ravi Kumar Shukla, Samta Manori, "Photocatalytic degradation of malachite green using PVDF membranes doped with Fe3O4 nanoparticles: role of porosity and surface roughness", Physica Scripta, Vol. 98, 105953, (September 2023) https://doi.org/10.1088/1402-4896/acf8a1 (Q2 Category Journal)
- A Sagar, S Bhardwaj, A Gupta, H Tripathi, R Shukla, Structural, optical, and photocatalytic properties of Ni–Zn and Mg-Zn spinel ferrites, Interactions 245 (1), 1-17. (2024) https://doi.org/10.1007/s10751-024-01930-0 (Q3 Category Journal)
- Prayas Singh, Surbhi Sachdev, Samta Manori, Sumit Bhardwaj, Havagiray Chitme, Ashish Sharma, Kuldeep Kumar Raina, Ravi K Shukla, Graphene quantum dot doped viscoelastic lyotropic liquid crystal nanocolloids for antibacterial applications, Matter 19 (34), 6589-6603, (2023) https://doi.org/10.1039/D3SM00686G, (Q1 Category Journal)
- Shriya Subramanyam, Suman, Lakshita Phor, Vishal Chaudhary, Vishakha Kaushik, Parveen Kumar, Surjeet Chahal, Progress in MXene synthesis approaches for energy systems: A comprehensive review, Journal of Energy Storage, 92 (2024), 112043. https://doi.org/10.1016/j.est.2024.112043. (Q1 category Journal)
- Radhika Choudhary, Surbhi Sachdev, Surjeet Chahal, Vishal Singh, Ajay Singh, Renu Rani, Ankurava Sinha, Parveen Kumar, Structural refinement, dielectric and ferroelectric properties of Cr modified B a 0 . 9 0 S r 0 . 1 0 T i O 3 c e r a m i c s , C e r a m i c s I n t e r n a t i o n a I (i n P r e s s) . https://doi.org/10.1016/j.ceramint.2024.04.420. (Q1 category Journal)
- 10. Neha, Anshu Mehta, Manoj Bhatnagar, Parveen Kumar, Chandra Prakash, Improved Dielectric and Ferroelectric Properties Near Morphotropic Phase Boundary in Sm3+ Modified BZT-BCT Ceramics, J o u r n a l o f P h y s i c s a n d C h e m i s t r y o f S o l i d s , 1 8 8 ( 2 0 2 4 ) 111 8 9 4 . https://doi.org/10.1016/j.jpcs.2024.111894. (Q2 category Journal)
- Radhika Choudhary, Vishal Singh, Ajay Singh, Surbhi Sachdev, Parveen Kumar, Investigation of Structural, Dielectric and Ferroelectric Properties of Nickel Substituted BST Ceramics, Phase Transitions, 97 (2024) 131-144. https://doi.org/10.1080/01411594.2023.2300992. (Q3 category Journal)
- Radhika Choudhary, Vishal Singh, Ajay Singh, Surbhi Sachdev, Parveen Kumar, A comparative study on the effect of Cr3+, Fe3+ and Ni2+ substitution on the dielectric, ferroelectric and electrocaloric re spons e of BS T c e rami c s, Ce rami c s Int e rna tiona I , 49 (2023) 35145-35156. https://doi.org/10.1016/j.ceramint.2023.08.187. (Q1 category Journal)
- Ankit Kumar, Stuti Kartikey Trivedi, Lakshita Phor, Jaideep Malik, Samir Bhargava, Vishakha Kaushik, Parveen Kumar, Surjeet Chahal, Visible light activated Mg, Co co-doped hematite for effective removal of reactive red 35 from textile wastewater, Ceramics International, 49 (2023) 37691-37699. https://doi.org/10.1016/ j.ceramint.2023.09.095. (Q1 category Journal)

DIT UNIVERSITY 139 Annual Report 2023-24

- Vishakha Kaushik, N. Kumari, A. K. Bhojani, D. K. Singh, S. Pathak, "Rheological and shear thickening properties in MoS2 nanosheets dispersion: An integrated experimental and theoretical investigation" Physica B: Cond. Matt. 673, 415453 (2023). (Q2 category Journal)
- S. Rawat, P. Bamola, C. Rani, Vishakha Kaushik, U. Kumar, C. Dwivedi, R. Rattan, M. Sharma, R. Kumar and H. Sharma, "Interdigitated electrodes-based Au-MoS2 hybrid gas sensor for sensing toxic CO and NH3 gases at room temperature" Nanotechnology, 34 305601 (2023). (Q1 category Journal)
- H. Sharma, Vishakha Kaushik, S. Pathak, D. C. Agarwal, A. K. Shukla, D. K. Avasthi & V. D. Vankar, "Impact of ioninduced changes on field emission in multi-walled carbon nanotubes" Journal of Materials Science: Materials in Electronics 34, 1152 (2023). (Q2 category Journal)
- Sonam Mahajan, Neha Aggarwal and Aranya B Bhattacherjee "Optical response properties of a hybrid optomechanical system with quantum dot molecules assisted by second-order optomechanical coupling", Physica Scripta, , (July 2023) Available online. https://doi.org/10.1088/1402-4896/ace28e (Q2 Category Journal)
- Neha Aggarwal, Sonam Mahajan, N Batra and Aranya B Bhattacherjee, "Effect of atomic ensemble position on the dynamics of cold atoms in an optical cavity: normal-mode splitting", Indian Journal of Physics, (September 2023) Available online. https://doi.org/10.1007/s12648-023-02914-6 (Q3 Category Journal)
- Ranjan Kumar, Madhav Kumar Singh, Sonam Mahajan, Aranya B. Bhattacherjee, "Study of optical bistability/ multistability and transparency in cavity-assisted-hybrid optomechanical system embedded with quantum dot molecules", Optical and Quantum Electronics, (December 2023) Available online. https://doi.org/10.1007/ s11082-023-05635-6 (Q2 Category Journal)
- Soni Sharma, & Jagat Pal Singh, Development of size and shape dependent model for various thermodynamic properties of nanomaterials. Physics Open, 19, 100215. (2024). https://doi.org/10.1016/j.physo.2024.100215 (Q3 Category Journal)
- Soniya Gupta, Dheeraj Kumar Joshi, Natasha Awasthi, Manish Pant, Bhagawati prasad Joshi, and Shshank Chaube, (May 2024) "Distance and similarity measures of Hesitant bi-fuzzy set and its applications in renewable energy systems." Mathematics and Computers in Simulation, https://doi.org/10.1016/j.matcom.2023.12.021 (Q1 Category Journal).
- Soniya Gupta, Dheeraj Kumar Joshi, Natasha Awasthi, Shshank Chaube, and Bhagwati Joshi, "Distance and Similarity Measures of Hesitant Bi-Fuzzy Set and Its Applications in Pattern Recognition Problem." In International Conference on Computer Vision and Robotics, (Sep 2023), https://doi.org/10.1007/978-981-99-4577-1\_7 (Q2 Category Journal).
- Natasha Awasthi, Ashutosh Singh, and Dheeraj Kumar Joshi, "Postponing the decay of entanglement and quantum coherence for maximally entangled mixed states under the action of correlated noise channels." Frontiers in Quantum Science and Technology, (Nov 2023) Available online. https://doi.org/10.3389/frqst.2023.1207793.

#### Department of Chemistry, School of Physical Sciences

 Sanjeev Saini, Arun Sharma, Navneet Kaur and Narinder Singh, Solvent directed morphogenesis of a peptidicbenzimidazolium dipodal receptor: ratiometric detection and catalytic degradation of ochratoxin A, Anal. Methods, (2024),16, 1111-1122. (Q2 category journal).

- Divya, Sanjeev Saini, Sanchit Kaira, Navneet Kaur, Narinder Singh, Self-assembled dipeptide grafted nanohybrid material strips for reliable spectroscopic and electrochemical recognition of tryptamine, Sensors and Actuators B: Chemical, Volume 415, 2024, 135992. (Q2 category journal).
- Sanjeev Saini, Kamalpreet Kaur, Navneet Kaur and Narinder Singh, Allosteric modulation for widely spread orthologues tyrosinase enzyme by short peptidyl-urea analogue: Facile syntheses of spiro compounds, (2024). Catalysis Letters. (Q 1 category journal)
- Singhal, S., Agarwal, S., Kumar, A., Singhal, N. et al. Waste Clothes to Microcrystalline Cellulose: An Experimental Investigation. J Polym Environ 31, 358–372 (2023). https://doi.org/10.1007/s10924- 022-02609-9 (Q1 category journal)
- Singhal, S., Agarwal, Singhal, N. Review of performance enhancement of anaerobic digestion with the aid of biochar and future perspectives, J. Renewable Sustainable Energy (2023) 15, 012702. (Q2 category journal)
- Singhal, S., Agarwal, S. & Singhal, N. Chemical recycling of waste clothes: a smarter approach to sustainable development. Environ Sci Pollut Res 30, 54448–54469 (2023). https://doi.org/10.1007/s11356-023-26438-y (Q2 category journal).
- 7. Achyuta Kumar Biswal; Laxmipriya Panda; Sourav Chakraborty; Subrat Kumar Pradhan; Manas Ranjan Dash; Pramila Kumari Misra. Production of a nascent cellulosic material from vegetable waste: Synthesis, characterization, functional properties, and its potency for a cationic dye removal. In ternational Journal of Biological Macromolecules, 2023, 242, 124959 (doi.org/10.1016/j.ijbiomac.2023.124959 (Q1 category journal)
- Supriya Priyambada Biswal.; Prabhudatta Hota.; Manas Ranjan Dash.; Amitabh Mahapatra.; Pramila K. Misra.
   Synthesis and characterization of tailor-made o-hydroxysubstituted anils through 1H NMR, ~13C NMR, SC-XRD and DFT studies for possible optoelectronic applications. Molecular Physics, 2023, 121. doi.org/10.1080/00268976.2023.2225651. (Q2 category journal)
- Manas Ranjan Dash.; Mohamad Akbar Ali, Can A Single Ammonia and Water Molecules Enhance the Formation of Methanimine Under Tropospheric Condition? Kinetics of
- CH2NH2+ O2 (+NH3/H2O), Frontiers in Chemistry, 2023, 11, 1243235. doi.org/10.3389/fchem.2023.1243235 (Q1 category journal)
- Manas Ranjan Dash; Balaganesh Muthiah.; Subhashree Subhadarsini Mishra. Formation of alkoxymethyl hydroperoxides and alkyl formates from simplest Criegee intermediate (CH2OO) + ROH (R=CH3, CH3CH2 and (CH3)2CH) reaction systems. Theoretical Chemistry Accounts, 2024, 143, 29, 1- 15. DOI:10.1007/ s00214-024-03104-1 (Q3 category journal)
- Shipra Pandit.; Manas Ranjan Dash\*, Cycloaddition reaction of methylidyne radical with dipyrromethanol: Quantum chemical insights into the formation of di(pyridin-2-yl)methanol. Spectroscopy Letters, 2024. DOI -10.1080/00387010.2024.2352068. (Q3 category journal)
- Pant, M., Singhal, N, Singh, J. (2023). Spatio temporal variations in water quality of Rispana river in Dehradun, India. Sustainable Water Resources Management. https://doi.org/10.1007/s40899-023-00906-2. (Q2 category Journal)
- Pant, M., Singh, J. (2024). Seasonal variation of surfacewater quality and streamflow in Rispana: A tributary of Ganges river, India. Environ Qual Manage. https://doi.org/10.1002/tqem.22199 (Q3 journal)

DIT UNIVERSITY 141 Annual Report 2023-24

- Singh, J. 2024. Is Agri-residue Burning a Menace for Air Quality & Public Health in Delhi, India? Atmosfera. https://doi.org/10.20937/ATM.53365 (Q 3 category journal).
- Manish Pant, Subhash Singh, J. Singh (2024). Seasonal behavior and spatial variations of water quality index and microbiological changes in the springs of Indian Himalayan Region. Environment, Development and Sustainability https://doi.org/10.1007/s10668-024-04624-3 (Q1 category journal).
- 17. Vishal Kansay, Varun Dutt Sharma, Anita Bhatia, M.K. Bera, Nikhil Kumar "Down-conversion luminescence nanocomposites based on nitrogen-doped carbon quantum dots@bioplastic for applications in optical displays, LEDs and UVC tubes." Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 2024, 124065. https://doi.org/10.1016/j.saa.2024.124065 (Q 1 category journal).
- Anita Bhatia, Senthilkumar Muthaiah, J.K.Kapoor, Vidushi Sharma, Monika Yadav "Synthesis, Characterization and Biological Activity of a Novel N1, N5-bis[2-hydroxyphenyl]-2- methyl-1,5- diaminopentane Schiff base: Effect of Methylene Spacers on Biological Activities." Journal of Molecular Structure, 2023, 136924. https://doi.org/10.1016/ j.molstruc.2023.136924 (Q 1 category journal)
- Vishal Kansay, Varun Dutt Sharma, Anita Bhatia, M.K. Bera "Luminescent nanocomposite based on Brassica juncea
  -derived intentionally Cu-doped carbon quantum dots embedded in bioplastic for UV- tube down- conv e rsion
  appl i c a tions." Appl i ed Phy si c s A, 2023, 129,632. http://dx.doi.org/10.1007/s00339-023-06901-w (Q 2
  category journal)
- Vishal Kansay, Varun Dutt Sharma, G. Chandan, Indu Sharma, Anita Bhatia, S. Chakrabarti, M.K. Bera "Facile green synthesis and characterization of fluorescent nanoprobe based on Ca, K, N-doped carbon quantum dots derived from Aegle marmelos for bioimaging of human neuroblastoma cancer cells and living organisms" Dyes & Pigments, 2023, 218, 111477. https://doi.org/10.1016/j.dyepig.2023.111477 (Q 1 category journal)
- Varun Dutt Sharma, Vishal Kansay, Anita Bhatia, M.K. Bera "Influence of intentional phosphorus doping on Brassica juncea-derived unintentionally N, Ca-doped carbon quantum dots@bioplastic composites for applications in LED and UV-tube down-conversion" Materials Chemistry and Physics, 2023, (303)127834. https://doi.org/10.1016/ j.matchemphys.2023.127834 (Q 1 category journal)
- Varun Dutt Sharma, Vishal Kansay, Anita Bhatia, M.K. Bera "Solid-state fluorescence from bioplastic nanocomposite embedded with intentional zinc doped carbon quantum dots synthesized from Brassica juncea flower extract for applications in UV-tube down-conversion" Materials Letters, 2023, (347), 134629 (Q 2 category journal)
- Sapna Chaudhary, DTK Dora, Suheel K. Porwal. (2023). Mesoporous composite aerogel derived from cellulosic waste for efficient adsorption and eco-friendly degradation of cationic dye. J Porous Mater. https:// doi.org/10.1007/s10934-023-01531-2 (Q 2 category journal)
- 24. Piyush Gupta, Shoaib Akhtar, Nisha, Ripudaman Singh Negi, Suheel K. Porwal, Raj Kumar Singh. (2023) Synthesis of fatty ester derived novel multifunctional additive and its performance evaluation in polyolbase oil. Journal of the American Oil Chemists' Society ( 2 0 2 3 ) https://doi.org/10.1002/aocs.12789 (Q2 category journal).
- Sapna Chaudhary, DTK Dora, Suheel K. Porwal. (2023). Silicon-free PSMA-modified aerogel derived from waste fruit peels for efficient oil recovery. Biomass Conversion and Biorefinery 2023. https://doi.org/10.1007/ s13399-023-04720-w (Q 2 category journal).

- Singh, N., Agarwai, P., Porwai, J. and Porwai S. K. (2023). Evaluation of block copolymer and homopolymer of stearyl methacrylate as multifunctional additives for lubricating oil. Polymer Bulletin (2023), https://doi.org/10.1007/ s00289-023-04937-9 (Q2 category journal).
- V Joshi, V Bachhar, SS Mishra, RK Shukla, A Gangal, M Duseja. (2024). GC-MS fingerprinting, nutritional composition, in vitro pharmacological activities and molecular docking studies of Piper chaba from Uttarakhand region, 3 Biotech 14 (6), 158. (2024) https://doi.org/10.1007/s13205-024-03996-7 (Q2 Category Journal).
- Gangal, A., Duseja, M., Sethiya, N. K., Bisht, D., Chaudhary, S. K., & Rana, V. S. (2023). A Validated HighPerformance Thin-Layer Chromatography Technique for Routine Analysis of Curcumin in Four Different Species of Curcuma Viz. C. amada, C. caesia, C. longa and C. zedoaria. Journal of Chromatographic Science, bmad063. https://doi.org/10.1093/chromsci/bmad063 (Q3 category Journal)
- Gangal, A., Duseja, M., & Sethiya, N. K. (2023). Chemical composition, in vitro antioxidant and amylase inhibitory activities of rhizomes essential oil and nutrient components from rhizomes powder of Curcuma caesia Roxb. (black turmeric) collected from Garhwal region of Uttrakhand, India. Journal of Essential Oil Bearing Plants, 26(6), 1473-1486. https://doi.org/10.1080/0972060X.2023.2293954 (Q2 category journal)
- Joshi V, Bachhar V, Singh A and Duseja M.(2023) Green Synthesis of TiO2 Nanoparticles Using Root Extract of Asparagus racemosus (Shatavari) and Evaluation of its Antibacterial, Antioxidant and Antidiabetic activities. Medicinal and Analytical Chemistry International Journal, Volume 7 Issue 2, DOI: 10.23880/macij-16000184
- Bachhar, V., Joshi, V., Gangal, A., Duseja, M., & Shukla, R. K. (2023). Identification of Bioactive Phytoconstituents, Nutritional Composition and Antioxidant Activity of Calyptocarpus vialis. Applied Biochemistry and Biotechnology, 1-27. https://doi.org/10.1007/s12010-023-04640-5 (Q 2 category journal).

#### Department of Mathematics, School of Physical Sciences

- Vikas Chaurasiya, (June 2024) "Analytical modeling of desublimation of a phase change material (PCM) in a porous medium with temperature-dependent volumetric heat sink and convection due to a ir m i x e d v a p o r ". N u m e r i c a I H e a t T r a n s f e r, P a r t A . A v a i I a b I e o n I i n e . doi.org/10.1080/10407782.2024.2364857 (Q2 Category Journal)
- Susheel Kumar, Vikas Chaurasiya, Jitendra Singh, (May 2024), A computational study of binary eutectic system
  with convection under volumetric freezing; A moving boundary problem, Thermal Science and Engineering
  Progress, Available online. doi.org/10.1016/j.tsep.2024.102563. (Q1 Category Journal)
- Virendra Upadhyay, Pooja Maurya, Surya Kant Chaturvedi, Vikas Chaurasiya, Dinesh Kumar, (June 2024), A
  mathematical analysis and simulation for F-L effect in two layered blood flow through capillaries, remote from the
  heart proximate to the human tissue, Symmetry. Available online. doi.org/10.3390/sym16060728. (Q2 Category
  Journal)
- Vikas Chaurasiya, Subrahamanyam Upadhyay, KN Rai, Jitendra Singh, (November 2023), Taylor Galerkin Legendre-wavelet approach to the analysis of a moving fin with size-dependent thermal conductivity and temperature-dependent internal heat generation. Journal of Thermal Analysis and Calorimetry. Available online. doi.org/10.1007/s10973-023-12613-3. (Q1 Category Journal)

DIT UNIVERSITY 143 Annual Report 2023-24

- Jitendra, Vikas Chaurasiya, K.N. Rai, Jitendra Singh (December 2023), Numerical simulation of a nonclassical moving boundary problem with control function and generalized latent heat as a function of moving interface. Zeitschrift für Naturforschung A. Available online. doi.org/10.1515/zna-2023-0226.
- Alpa Singh Rajput, Mahima Thakur, S. S. Thakur, Fuzzy soft set connected mappings, Ratio Mathematica, Vol 48, 2023.
- Pervinder Singh, Vinod K. Gupta, N.M. Chadha (June 2024): Study of Heat and Mass transports due to modulated rotational flow in a triply diffusive Newtonian Liquid saturated porous medium/fluid layer: A Comparative Study, vol. 108, pp. 109449, International Journal of Heat and Fluid Flow, Available online, https://doi.org/10.1016/ j.ijheatfluidflow.2024.109449.
- Preeti Rangdal, Vinod K. Gupta, I. L. Animasaun, T. Muhammad (February 2024), Unveiling the intricacies: Exploring the impact of concentration modulation on weakly nonlinear thermal instability in a rotating porous medium, Chinese Journal of Physics, Available online. https://doi.org/10.1016/j.cjph.2024.02.005.
- A. Jakhar, Anand Kumar, Vinod K. Gupta (October 2023), Weakly nonlinear instability analysis of triple diffusive convection under internal heat generator and modulated boundaries, Physics of Fluids, AIP, Available Online. doi: 10.1063/5.0169618
- A. Jakhar, Anand Kumar, Vinod K. Gupta (August 2023), Study of weakly nonlinear double-diffusive magnetoconvection under concentration modulation, Heat Transfer, Wiley, Available online. Doi. https://doi.org/10.1002/ htj.22939.
- Soniya Gupta, Dheeraj Kumar Joshi, Natasha Awasthi, Manish Pant, Bhagawati prasad Joshi, and Shshank Chaube (May 2024) "Distance and similarity measures of Hesitant bi-fuzzy set and its applications in renewable energy systems." Mathematics and Computers in Simulation 219 (2024): 321-336. https://doi.org/10.1016/ j.matcom.2023.12.021, (SCI, Q1 Category Journal, IF 4.6).
- 12. Rawat, Sawan Kumar, Moh Yaseen, Manish Pant, Chandan Singh Ujarari, Dheeraj Kumar Joshi, Shshank Chaube, Anup Singh Negi, and Manoj Kumar (SEP 2024) "Designing soft computing algorithms to study heat transfer simulation of ternary hybrid nanofluid flow between parallel plates in a parabolic trough solar collector: case of artificial neural network and particle swarm optimization." International Communications in Heat and Mass Transfer 148 (2023): 107011. https://doi.org/10.1016/j.icheatmasstransfer.2023.107011 (SCI, Q1 Category Journal, IF 7.0)
- 13. Joshi, Bhagawati Prasad, Dinesh Kumar, Dheeraj Kumar Joshi, Sanjay Oli, Ashish Rayal, and Shailendra Giri (March 2024) "Utilizing a Hybrid Geometric Operator for AIFS Data in Renewable-Energy-Source Classification." In 2024 2nd International Conference on Intelligent Data Communication T e c h n o l o g i e s a n d l n t e r n e t o f T h i n g s ( I D C I o T ), p p . 2 9 8 3 0 2 . I E E E , 2 0 2 4 . https://doi.org/10.1109/IDCIoT59759.2024.10467252 (Scopus, Q1 Category Journal)
- 14. Gupta, Soniya, Dheeraj Kumar Joshi, Natasha Awasthi, Shshank Chaube, and Bhagwati Joshi. (Sep 2024) "Distance and Similarity Measures of Hesitant Bi-Fuzzy Set and Its Applications in Pattern Recognition Problem." In International Conference on Computer Vision and Robotics, pp. 77-91. Singapore; Springer Nature Singapore, 2023. (Scopus, Q2 Category).
- Gupta, Soniya, and Dheeraj Kumar Joshi (March 2024) "ORESTE approach for sustainable supplier selection problem with probabilistic dual hesitant fuzzy information." In AIP Conference Proceedings, vol. 3025, no. 1. AIP Publishing, 2024. https://doi.org/10.1063/5.0201369 (Scopus).

DIT UNIVERSITY 144 Annual Report 2023-24

- Sandeep Sharma "Global Stability of a Cholera Model with a Generalized Treatment Function." Differential Equations and Dynamical Systems (2024): 1-15.
- Prasoon Pandey, Lubhna Uniyal, and Sandeep Sharma. "Modelling the adverse impacts of urbanization on human health." Computational and Mathematical Biophysics 12, no. 1 (2024): 20240003.
- Sumit Kumar, Sandeep Sharma, Atul Kashyap, and Nitu Kumari. "Role of Pollution in the Recent Zika Outbreak in Colombia: A Mathematical Study." Journal of Applied Nonlinear Dynamics 13, no. 03 (2024): 491-505.
- Pooja Swaroop Saxena, Role of (A<sub>r</sub>) metric in hypersurface of a Finsler Space and mth root metrices in Randerschange of Finsler Space, Journal of North Eastern University, ISSN: 1005-3026, Vol. 26 Issue01, 2023, Scopus Indexed , 463-469.
- Serah Sudhin, Ghodake Shamrao P., Pooja Swaroop Saxena, Bhabajyoti Saikia, Manish D Rai, Sanjay Kumar Sing, A Structural Equation Modeling On Financial Health For Businesses, Migration letters, Scopus Indexed (Q2) ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online), Volume: 21, No: S8 (2024), pp. 932-938.
- Himani Pant, and S. B. Singh. "Multi-objective optimization of a sequentially inspected system prone to revealing and non-revealing failures via particle swarm optimization and a fuzzy method." Journal of Industrial and Production Engineering (2024): 1-14.
- Mintu Kumar, Himani Pant, and S. B. Singh. "Fuzzy Reliability and Availability of System under a Calendar-based Inspection Involving Multiple Failures and Its Application to Wind Turbine System." Journal of Systems Science and Systems Engineering 33.2 (2024): 187-206.
- Himani Pant, and S. B. Singh. "Multi-Objective Inspection Optimization of Periodically Inspected Multi-Failure Mode System." International Journal of Reliability, Quality and Safety Engineering 31.02 (2024): 2450003.
- Tribhuvan Singh. "Statistical design of ARL-unbiased exponential chart with runs and scans rules". Brazilian Journal
  of Probability and Statistics, (2024)
- Jogendra Kumar, Friday Ighaghai Oyakhire, Udu-ukpai Okoro: Numerical Solution of Helmholtz Equation using the Galerkin and Collocation Methods, AIP Conf. Proc., 160001, Volume: 3087, Issue: 01; Published on 04 March 2024; DOI: https://doi.org/10.1063/5.0200396.
- Pragya, Jogendra Kumar: The impact of the ternary nanofluid in the heat exchange of the stretched sheet, AIP Conf. Proc., 080001, Volume: 3087, Issue: 01; Published on 04 March 2024; DOI: https://doi.org/10.1063/5.0199363.

#### School of Pharmaceutical & Populations Health Informatics

 Farheen, Akhter MH, Chitme H, Suliman M, Jaremko M, Emwas A. (Jul 2023). "Surface-Modified Biobased Polymeric Nanoparticles for Dual Delivery of Doxorubicin and Gefitinib in Glioma Cell Lines", ACS Omega, 8(31): 28165-28184. DOI: 4.1.

DIT UNIVERSITY 145 Annual Report 2023-24

- Ahmad I, Farheen, Kukreti A, Afzai O, Akhter MH, Chitme H, Visht S, Altamimi ASA, Alossaimi MA, Alsulami ER, Jaremko M, Emwas A. (Jul 2023). "Natural Oils Enhance the Topical Delivery of Ketoconazole by Nanoemulgel for Fungal Infections", ACS Omega, 8(31): 28233–28248. DOI: 4.1.
- Sharma S, Kumar G, Kumar N, Sethiya NK, Bisht D. (Oct 2023). "Diuretic Activity of Ethanol Extract of Piper attenuatum Leaves Might Be Due to the Inhibition of Carbonic Anhydrase Enzyme: An in vivo and in silico Investigation", Clinical Complementary Medicine and Pharmacology, 4: 100117. DOI: No.
- Rani R, Sharma AK, Chitme HR. (Oct 2023). "Therapeutic Effect of Tinospora cordifolia (Willd) Extracts on Letrozole-Induced Polycystic Ovarian Syndrome and its Complications in Murine Model", Clinical Medicine Insights: Endocrinology and Diabetes, 16. DOI: 2.8.
- Pant P, Chitme H, Sircar R, Prasad R, Prasad HO. (Oct 2023). "Differential Gene Expression Analysis of Human Ovarian Follicular Cumulus and Mural Granulosa Cells Under the Influence of Insulin in IVF Ovulatory Women and Polycystic Ovary Syndrome Patients Through Network Analysis", Endocrine Research, 1-24. DOI: 2.1.
- Chauhan K, Bhalia P, Chitme HR, Varshney VK. (Oct 2023). "Exploring the therapeutic potential of Prinsepla utilis
  Royle seed oil: A comprehensive study on chemical composition, physicochemical properties, anti-inflammatory,
  and analgesic activities", Journal of Ethnopharmacology, 319: Pt3; 117312. DOI: 5.4
- Pant P, Sircar R, Prasad R, Prasad HO, Chitme HR. (Nov 2023). "Protein Expression and Bioinformatics Study of Granulosa Cells of Polycystic Ovary Syndrome Expressed Under the Influence of DHEA", Clinical Medicine Insights: Endocrinology and Diabetes, 2016: 11795514231206732. DOI: 2.8.

#### School of Nursing

- Mrs. Lalitha, Dr. S. Victor Devasirvadam, "Effectiveness of painting in terms of hyperactivity among primary school children, 2023 JETIR September 2023, Volume 10, Issue 9 www.jetir.org(ISSN-2349- 5162) JETIR2309025 Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir.org
- Ashok Kumar bairwa, Dr pratiksha patric. "The Knowlegde of Nursing personal related to pediatric thalassemia, IJCRT, Indore MP. 2023
- Ashok kumar bairwa, Dr pratiksha patric. "Effect of awareness program on Knowledge regarding pediatric thalassemia among people" Indore MP. 2023.
- Divya Trivedi, Hemlata, Rakhi Mishra, "A systematic review and meta-analysis of simulation-based learning in nursing curriculum- time to prepare quality nurses. Cell/heliyon May 2023.
- 5. Chhanda chakraborty. "Pain level of critically ill patient admitted in ICU and nurses' perception on pain", 2018
- Balodhi Manjul, Philip Sheeba. Effectiveness of Video Assisted Teaching on Knowledge and Practice of Nasogastric Tube Insertion among a Group of Newly Joined Staff Nurses. International Journal of Science & Research. 2024 Feb; 13(2):1494-1497, doi: 10.21275/SR24221130452.
- Gaurav Negi, Archana Maletha, "Effectiveness of Video Assisted Teaching Programme on Knowledge regarding Shaken Baby Syndrome among the Mothers of Infants and Toddlers. International Journal of Science and Research (IJSR), Volume 12 Issue 12, December 2023.

- Sharma Ajay, Maibam Reena, "Assess the Effectiveness of Need Based on Digital Detox Program Regarding the Overuse of Social Media among B.Sc. Nursing Students, International Journal of Science and Research (IJSR), Volume 13 Issue 1, January 2024, pp. 423-427/S24105125700
- Ms. Shradha Uniyal, Dr. Grace M. Singh, Mrs Sandhya Negi, "Mental well-being of Housekeeping workers working during covid 19 pandemic in a selected tertiary care hospital". JRTDD 2024.

#### Center of Excellence (IoT Lab)

- Prakash, C., Barthwal, A. & Acharya, D. An IoT-based system for monitoring and forecasting flash floods in realtime. J Earth Syst Sci132, 159 (2023). https://doi.org/10.1007/s12040-023-02172-4.
- C. Prakash, D. Acharya and A. Barthwal, "Hydro-Meteorological Flood Data Sensing, Prediction and Classification using Internet of Things," 2023 IEEE Region 10 Symposium (TENSYMP), Canberra, Australia, 2023, pp. 1-6, doi: 10.1109/TENSYMP55890.2023.10223648.
- T. Kumar, D. Acharya and D. Lohani, "A Data Augmentation-based Road Surface Classification System using Mobile Sensing," 2023 International Conference on Computer, Electronics & Electrical Engineering & their Applications (IC2E3), Srinagar Garhwal, India, 2023, pp. 1-6, doi: 10.1109/IC2E357697.2023.10262705.

#### Central Library

- Sain, Sanjiv K. & Kumar Singh Rajesh (2024) Connected Campuses: The Role of Networking in Private University Education at 3rd Edition of International Conference on Knowledge Management in Higher Education Institutions (ICKHI 2024) to be held on 30-31 January 2024 at Manipal University, Jaipur. Proceeding, ISBN-978-81-952757-9-3
- Sain, Sanjiv K. &Kumar Singh Rajesh (2024) Unlocking Access: A Study of Networking and Resource Sharing Strategies in Private University Libraries of Uttarakhand at National Conference on Innovative Library Technologies and Services (NCILTS - 2024) to be held on 20th-21st February 2024 at DLIS, University of Rajasthan, Jaipur in collaboration with RRRLF & (SLP) Souvenir, pp.21"
- Sain, Sanjiv K. &Kumar Singh Rajesh (2024) Tech-Driven Libraries: A Blueprint for Sustainable ELearning Services
  at International Conference on Knowledge Organization in Academic Libraries IKOAL 2024 "Innovative Technology
  and Applications for Sustainable Library Services to be held on 15-16 February 2024 at in collaboration with
  MITWPU, Pune Proceeding, pp.301-314, ISBN-978-93-94070-91-2
- 4. M Sain, Sanjiv K. &Kumar Singh Rajesh (2024) Knowledge Fusion: Enhancing Networking And Resource Sharing In Private University Libraries Across Uttarakhand at International Journal of Research and Analytical Reviews (JIRAR) an International Peer Reviewed & Refereed Journals, Open Access Journal, Vol 11 Issue1, pp.668-676, February 2024, E-ISSN: 2348-1269, P-ISSN: 2349-5138, http://doi.one/10.1729/Journal.38112"

DIT UNIVERSITY 147 Annual Report 2023-24

- Negl, Asha & Sain, Sanjiv K. (2023) Information Dissemination in Academic Libraries: Using ICT at International Conference on Digital Transformation (ICDT) 2023 to be held on 3-4 November 2023 at National Law University Delhi, Proceeding\*
- Sain, Sanjiv K. & Negi, Asha (2023) ChatGPT: Reimagines and Redefines the Future of Libraries at International Conference on Digital Transformation (ICDT) 2023 to be held on 3-4 November 2023 at National Law University Delhi, Proceeding\*
- Negi, Asha & Sain, Sanjiv K. (2023) Al's Footprint in Libraries: Enhancing Services and Streamlining Management at International Conference on "Al-Driven Advancements in Research and Publications: Intellectual Property Rights, Knowledge Management, and Beyond." to be held on December 1-2, 2023 at Ashok Goel Library, Rishihood University, NCR of Delhi, Sonipat, Haryana. Proceeding, 287-292, ISBN-978-81-19689-34-7

## **School of Computing**

S. No.	Title of the project	Project Investigator/s	Funding Agency	Amount (in INR)	Status
1.	Statistical Analysis of EM Radiation by Cell Tower and other EM sources and its Health Aspects	PI: Dr. Brajlata Chauhan, Co-PI: Dr Gaurav Dhiman and Amrindra Pal,	DIT University	1.15 Lakhs	Ongoing
2.	A Smart Energy-Saving Protocol for Precision Agriculture in Wireless Sensor Networks	Dr. R. K. Saini	SERB/Core Research Grant (DST)	14,00,000	Under Review
3.	Enhancing UAVNET Communication Reliability and Performance via AlEnabled Link Failure Prediction: Ensuring Reliability through Alternate Route Discovery	Dr. Surabhi Patel	Indian Council of Social Science Research (ICSSR), INDIA & Japan Society for the Promotion of Science (JSPS), JAPAN.	1,501,500	Under Review

## School of Engineering and Technology

S. No.	Title of the project	Project Investigator/s	Funding Agency	Amount (in INR)	Status
1.	Assessment and Prediction of Hydraulic Conductivity of DIT University Campus	Dr Rana Acharyya	DITU	1,50,000	Sanctioned
2.	Performance Comparison of Unreinforced Brick Masonry for Different Brick Bonds and Different Construction Materials	Dr Rohit Maheshwari	DITU	1,00,000	Sanctioned
3.	Identification of KeyIndicators for Evaluation of Service Quality of Pedestrian Facility in Dehradun City	Dr Subhojit Roy	DITU	1,25,000	Sanctioned

# List of Research Projects

4.	Statistical analysis of EM Radiation :Health Aspect	Dr. Brajiata Chauhan	DITU	1.81L	Ongoing
5.	Development of a Hybrid Thermal Energy Storage System for Water Heating	Dr. Ravi Kumar- PI Dr. Anil Kr. Patil – COPI Dr. Manoj Kumar-COP	Uttarakhand state council for Science and Technology	6,00,000	Ongoing

# School of Physical Sciences

S. No.	Title of the project	Project Investigator/s	Funding Agency	Amount (in INR)	Status
		PHYS	ics		
1,	Effects of Quantum Correlations in Presence of Environment	Dr. Natasha Awasthi	Seed money	2 Lakh	Ongoing
2.	Optical Response of hybrid Optoelectrome- chanical systems: Feasibility of using in quantum Communication and Sensing	Dr. Sonam Mahajan Mishra	Seed money	1 Lakh Ongoing	Ongoing
3.	Photo-Dielectric Effect in Liquid Crystals (PDELC)	Dr. Ravi Shukla	UGC-DAE	15 Lakh	Ongoing
4,	2D materials for HER applications	Pl. Dr. Jabrinder Singh Co-Pl Prof. Naveen Singhal	UCOST (DST) Govt. Of Uttarakhand	4.5 Lakhs	Completed
		СНЕМІ	STRY		
5.	'Appraisal of environmental streamflow of Rispana with reference to spatiotemporal variation of water quality index and catchment potential'.	Pl. Dr. Jabrinder Singh Co-Pl Prof. Naveen Singhal	UCOST (DST) Govt. Of Uttarakhand	4.5 Lakhs	Completed

# **List of Research Projects**

6.	"Exploring the Potential of Renewable Waste Cooking Oil for Biolubricant Formulations: A Case Study",	PI- Dr. Suheel K. Porwal and Co-PI- Dr. Jyoti Porwal, Co-PI- Dr. Naveen Singhal,	Awarded by UCOST (DST) Govt. Of Uttarakhand	4.00 Lakhs	Ongoing
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## SoPPHI

S. No.	Title of the project	Project Investigator/s	Funding Agency	Amount (in INR)	Status
1.	"Synthesis, characterization and biological evaluation of smart novel nanotheranostic for cancer"	Dr. Natasha Awasthi	Seed money	2 Lakh	Ongoing

## **School of Computing**

S. No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	DIT University	Dr. Nafees Ahamad, Paramjeet Bind, Dr. Dhruva Chaudhary, Dr. Garima Verma	Self-Charging Al-Based Surveillance and Detection Drone with Real-Time Alert System (Appno- 202311057566)	Published

## School of Engineering & Technology

S. No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	UTIQ	Mr Rohit Maheshwari and Dr Binay Kumar Singh	Confined Masonry Construction, IPR	Granted
2.	DIT University	Dr. Sonika Singh, Dr. Gagan Singh	Method for removing speckle noise from ultrasound images for diagnosis of foetal health	Published
3,	DIT University	Nafees Ahamad, Afzal Sikander, M. Aftab Azam, Suhail Khan	Power Control System for Electric- Assist Modes of Electric-Assist Bicycle	Granted
4.	DIT University	Nafees Ahamad, Paramjeet Bind	Blower Assembly for Rider in Two Wheelers	Granted
5.	DIT University	Dr. Gagan Singh , Dr. S Bhanu Praksh, Dr. Sonika Singh	Supercapacitors based Energy Storage System for powering household devices in remote areas.	Published
6.	DIT University	Dr. Gagan Singh , Dr. Sonika Singh	Reducing Foetal Hyperthermia in prenatal ultrasound	Published
7.	DIT University	Dr. Sonika Singh, Dr. Gagan Singh, Dr. Kuldeep Choudhary, Dr. Nafees Ahamad, Dr. Dhruva Chaudhary, Mr. Saurabh Mishra	A System and method for Drive Testing for 5G NSA connectivity in hilly terrain	Filed

8.	DIT University	Mr. Saurabh Mishra, Dr. Sonika Singh, Dr. Gagan Singh	Cooperative MIMO With 5G Integration In Wireless Sensor Networks For Telemedicine Applications.	Filed
9.	DIT University	Saurabh Mishra, Sonika Singh, Gagan Singh	Cooperative MIMO In Wireless Sensor Networks For Healthcare Applications Published On 10th May 2024 Agency: Indian Patent Office	Published
10.	DIT University	Dr. Brajlata Chauhan et al Filed by Ms. Neha Gupta	"Go Green: Analyzer For Pollution Control In Vehicles"	Published
11.	DIT University	Dr. Amrindra Pal, Dr. Gaurav Srivastava, Dr. Gaurav Dhiman, Dr. Brajlata Chauhan	Footwear Cleaning Device	Published
12.	DIT University	Dr. Brajlata Chauhan, Dr. Amrindra Pal, Dr. Gaurav Dhiman, Ishita , Arsh Hasan	"Accident Prevention And Detection System For Vehicle"	Published
13.	DIT University Dehradun	Dr. Brajlata Chauhan, Dr. Amrindra Pal, et al	"Broadband Electromagnetic Radiation Absorber"	Published
14.	Dr. Jasvir Department of Physics, Rajdhani College, University of Delhi	Dr. Jasvir , Dr. Smita Korpal, Dr. Supreet , Dr. Sanjeev Kumar, Dr. Gurjinder Singh , Ms. Jyoti Gaur, Prof. Anand Kumar	Advanced EMI Shielding With Conducting Polymer-Graphene Composite	Published
15.	DIT University Dehradun	Mr. Saurabh Singh Dr. Manoj Kumar Dr. Anil Kumar Patil	Boiling Heat Transfer On Concentric Circle Type Engraved Surface	Granted

## School of Design

S. No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	DITU	Saddiya Murtuza, Mudita Chugh	Wall hanging bulb	Granted

## School of Physical Sciences

#### Department of Physics

S. No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	DIT University	Savita, Samta Manori, Ravi K. Shukla	A double perovskite La2FeMnO6 (LFMO) nanoparticles and method for the preparation, Indian Patent, application number: 202411013616	Published
2.	DIT University	Priya Yadav, Samta Manori, KK Raina, Ravi Shukla	Binary Nanocomposite (Go/Fe2O3 Nc) Based Formulation For Contact Electrocatalysis And Method For Preparation Thereof, Indian Patent, application number: 202311082655	Published
3.	DIT University	Kanak, Prayas Singh, Farheen, Pankaj Pant, Samta Manori , Havagiray R. Chitme, K. K. Raina, Ravi K. Shukla	Carbon quantum dots derived from Nigella sativa seeds for antibacterial applications, Indian Patent, application number: 202311017718	Published
4.	DIT University	Vishakha Kaushik, S. Chahal, S. Pathak, P. Kumar	Facile Synthesis of Molybdenum Trioxide Nanoplates Structure by Modified Hydrothermal Method	Published
5.	DIT University	S. Chahal, S.K. Trivedi, A. Kumar, L. Phor, J. Malik , Vishakha Kaushik, P. Kumar, S. Sachdev, M. Bhatnagar	Facile Route for Synthesis of Iron Oxide Nanoparticles	Published
6.	DIT University	M. Jha , Vishakha Kaushik, S. Pathak, S. Chahal, S. Sachdev, M. Bhatnagar, P. Kumar	Green synthesis of reduced graphene oxide	Published
7.	Dr. Natasha Awasthi et.al.	Dr. Natasha Awasthi et.al.	Sustainability of entanglement sudden death under the action of memory Channel	Published

8.	DIT University	Dr. Soni Sharma, Dr. Jagat Pal Singh & Dr. Natasha Awasthi	Development of suitable Equation of State for Nano and bulk Materials	Filed
9.	DIT University	Savita, Samta Manori, Ravi K. Shukla	A double perovskite La2FeMnO6 (LFMO) nanoparticles and method for the preparation, Indian Patent, application number: 202411013616	Published

## School of Physical Sciences

#### Department of Chemistry

S. No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	DIT University	Avinash Gangal, Dr. Manisha Duseja, Dr. Ravi Shukla, Dr. Neeraj Sethiya	Silver Nanoparticles Derived From Curcuma Longa Andmethod For Synthesis Thereof	Published
2.	German Patent	Achyuta Kumar Biswal, Sourav Chakraborty, Manas Ranjan Dash, Pramila Kumari Misra, Laxmipriya Panda, Subrat Kumar Pradhan;	Zusammensetzung und System zur Synthese und Charakterisierung von zellulosischen Nanokristall aus pflanzlichen Abfällen zur "Farbentfernung" (Composition and system for synthesizing and characterizing cellulosic nanocrystal from vegetable waste for dye removal)	Granted
3.	DIT University	Manish Pant, Kanak, Prayas, Samta, Jabrinder Singh, Ravi Shukla	Black seeds (Nigella sativa) based nano-formulations for inhibition of Escherichia coli and degradation of Clothianidin pesticide.	Filed / Accepted
4.	DIT University	Nisha Singh and Priyanka Agarwal, Dr. Suheel K. Porwal,	A method for preparation of homopolymer based lubricant additive"	Published

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#### School of Physical Sciences

#### Department of Mathematics

S, No.	Name of Applicant/s	Name of Inventor/s	Title With Name of Patent Agency	Status
1.	Dr. Alpa Singh Rajput	Intellectual Property India	Machine Learning Powered Fake Currency Identification Device. Government of India, 4/9/23	Granted
2.	Dr. Alpa Singh Rajput	Indian Patent	Method and System for Modeling Hesitant Bipolar Valued Fuzzy Graphs in Mathematics, Aug 23	Published
3.	Dr. Dheeraj K. Joshi	Dr. Dheeraj K. Joshi	Sustainability Of Entanglement Sudden Death Under The Action Of Memory Channel, Indian Patent	Published

## Dr. Mandeep Arora

1,	Khurana A, Arora MK, Sahu V, Bhardwaj A, Modanwal P, Baneshi D, k Dubey H. System and method for efficient adverse drug reaction rep oncology. Application No.202411015592 A. Publication Date: 08/03/	
2.	National	Banerjee UC, Singh M, Arora MK, Singh C, Dayal R, Suresh S, Roy S. Formulation of Telmisartan-Phospholipid Complexes. Application number-202411015595. Publication Date: 08/03/2024
National Singh M, Suresh S, Roy S, Arora MK, Jangra A. Formulation for Treat Paediatric Tuberculosis and Method of Preparation Thereof. Applica		Singh M, Suresh S, Roy S, Arora MK, Jangra A. Formulation for Treating Paediatric Tuberculosis and Method of Preparation Thereof. Application Number 202311051116 A, Publication Date: 01/09/2023.

## Rajeev Kumar Sharma and Ashok Behera

Rajeev Kumar Sharma, Ashok Behera etal Indian Patent publish Entitled "Lipid-based formulation labdane diterpene rich extract from Hedychium Spiaticum and the Method of Preparation theorof" Application No. 202311082656 published on 12/01/2024.

#### Ashok Behera

 Khatri, R., Akhter, H., & Behera, A. (2022). Berberin loaded hybrid nanoparticle composition for treatment of neurodegeneration. Dit University. Application No. 202211036866, filling date27/6/2022, published date 8/7/2022. Patent No. 471914 granted in the field of polymer technology.2024

 Patel, R. P., Sahoo, J., & Behera, A. (2022). 5-Fluorouracil-1-acetic acid (5-FUA) loaded chitosan nanoparticle composition and method for preparation thereof. Dit University. Application No. 202211037593, filling date 30/6/2022, published date 15/7/2022. Patent No. 496469 granted in the field of chemical technology.2024

#### Singhal M

- Indian Design Application Number 391545-001; Cbr Number 209492; entitled "SOXHLET APPARATUS FOR ISOLATION AND RECOVERY OF CHEMICAL COMPOUNDS", Date of Grant 29/09/2023. Journal No is 39/2023.
- Mohlt, Singhal M, Ranjana, Singh P, Indian Design Application Number 397310-001; Cbr Number 212810; entitled "Autoclave for ulta clean sterilization in Pharmaceutical laboratories", Journal No is 51/2023 Date of Grant 20/12/2023

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# MoUs of DITU

## MOUs/Academic Collaboration

Name of Institutes/ Industries	Purpose
VIRTUSA CONSULTING SERVICES PRIVATE LIMITED Chennai - India VIRTUSA CONSULTING SERVICES PRIVATE LIMITED Chennai - India	For the purpose of enriching practical skills and imparting industry relevant course curriculum to students of all engineering disciplines in the field of Information Technology("IT"),has approached Virtusa wit a proposal for forging an industry-institute academic alliance to facilitate and train the Partner's students and faculty on Full Stack and DevOps by utilizing the Virtusa's relevant experience and projects, and by deputing its technicians at the lab of DITU with the objectives of providing exposure to DITU's faculty and students to current industrial needs and requirements.
Coursera Gurgaon/India	Academics
Red Hat Academy Mumbai/India	To provide the next generation of IT talent with free access to a range of Red Hat's training courses and certification exams.
IBM Bangalore/India	Availability of skilled resource pool armed with IBM Software skills that various organizations may want to evaluate for recruitment Propagation of IBM Software and technology knowledge & skill to various students and faculty members.

# MOUs/Academic Collaboration SOET

Name of Institutes/Industries	Purpose
CSIR-IIP India	Exchange of personal for limited periods a mutually agreed upon.  Organization of joint conferences and seminars.  Practical training, Summer training for students at CIPET.  Joint guidance of student projects/thesis  Joint Ph.D. program as per mutually agreeable terms.  Admission of CIPET diploma trainees to B.Tech. (lateral entry)  Sharing of testing facilities and other infrastructure for mutual benefits.
CSIR-IIP India	Encourage interaction between the scientists, staffs, research fellows, research scholars, faculty members and students of both the organizations.     Exchange of personal for limited periods as mutually agreed upon.     Organization of joint conferences and seminars.     Practical training of DITU-Dehradun students at CSIR-IIP.     Joint guidance of student projects/thesis     Joint Ph.D. program as per mutually agreeable terms.
<b>DEAL-DRDO</b> India	<ul> <li>Encouragement of interaction between scientist staff, research fellows, research scholars, faculty members and students of both organizations.</li> <li>Conduct B.Tech and M.Tech academic programs as per mutually agreeable terms.</li> <li>Sharing of scientific and academic knowledge as mutually agreed upon.</li> <li>Organization of joint conferences and seminars.</li> <li>Joint Ph.D. guidance of PG/UG students for project thesis.</li> <li>Joint Ph.D. program as per mutually agreed terms.</li> </ul>

# MoUs of DITU

Name of Institutes/Industries	Purpose
iHUB Divyasampark, IIT Roorkee	<ul> <li>Planning and jointly conducting grand innovation challenges for DIT University and other students of Uttarakhand in cyber physical system for avoiding problems related to hilly states.</li> <li>Promotion of product development and technology transfer in the region.</li> <li>Ensure skill development in the region by conducting seminars, courses, etc.</li> </ul>
IIRS India	Academic Research     Exchange of students and scientists
Central institute of petrochemicals Engineering & Technology (CIPET-Dehradun) Dehradun, India	To explore, extend and strengthen the functional relationship beteen the academic institutions, meducational and mscientific collaboration form mutual benefit for students internship, projects, sharing of testing facilities, M.Tech Projects etc.
Rock Flow Dynamics Ltd. Cyprus	Navigator Software Academic License Agreemer

## MOUs/Academic Collaboration School of Physical Sciences

Name of Institutes/Industries	Purpose
IIP-CSIR Dehradun	Research
GB Pant Instt of Himalayan Env. & Development, Almora Almora	Research

## MOUs/Academic Collaboration SOLAM (Management)

Name of Institutes/Industries	Purpose
The Institute of Company Secretary of India (ICSI) New Delhi, India	Conduct FDP, Guest Lecture, Seminar, Training etc. for Faculty, Scholars and Students.  Exchange of Publications, Course Materials, Case Studies etc.  Faculty Exchange.  Joint Research projects of mutual interest Extended help and co-operation in developing curriculum.

## MOUs/Academic Collaboration (Humanities)

Name of Institutes/Industries	Purpose
Heritage Institute of Languages Dehradun, India	Knowledge transfer in the field of German and Spanish languages.
<b>Debre Tabor University</b> Ethiopia	To develop academic and educational cooperation and to promote mutual understanding between the two academic institutions.

# MoUs of DITU

## MOUs/Academic Collaboration SoPPHI

Name of Institutes/Industries	Purpose
FRI (Forest Research Institute), Dehradun Dehradun	Mutual understanding of the key responsibility in taking up joint masters dissertation and doctoral thesis work     Use of analytical facilities at chemistry and bioprocessing division, Utilization of library resources     Participation in scientific events     Student academic training and experiential training.
Royal College of Pharmacy (RCP)	<ul> <li>Exchange faculty visiting.</li> <li>Utilization of resource.</li> <li>Scientific events.</li> <li>Student exchange program.</li> <li>Research Collaboration.</li> </ul>
Foundation for Healthcare Technologies Society	To stimulate and provide research opportunity to the PG, Ph.D students and other senior researchers. Jointly organize Seminars, Conferences, etc. in order to increase the social science research in Uttarakhand.
Institute of Clinical Research (ICR)	For the purpose of research & academic cooperation.
Tirupati Medicare Ltd	For the purpose of research & academic cooperation.
Indian Glycol Ltd.	For the purpose of research & academic cooperation.

# MoUs of DITU

## MOUs/Academic Collaboration SoPPHI

Name of Institutes/Industries	Purpose
Council of Scientific & Industrial Research (CSIR IIP) Dehradun, India	For the purpose of research & academic cooperation.
GB Pant National Institute of Himalayan Environment Dehradun, India	For the purpose of research & academic cooperation.

