

AIGMF's Executive Committee Meeting and celebrating National Education Day



ROLE OF EDUCATIONAL INSTITUTIONS *for* BUILDING INDUSTRY WORK FORCE

By

Prof. A. S. Rao

**HoD, Department of Applied Physics
Delhi Technological University
Bawana Road, Delhi-110042**



Vision and Mission of Delhi Technological University

Vision

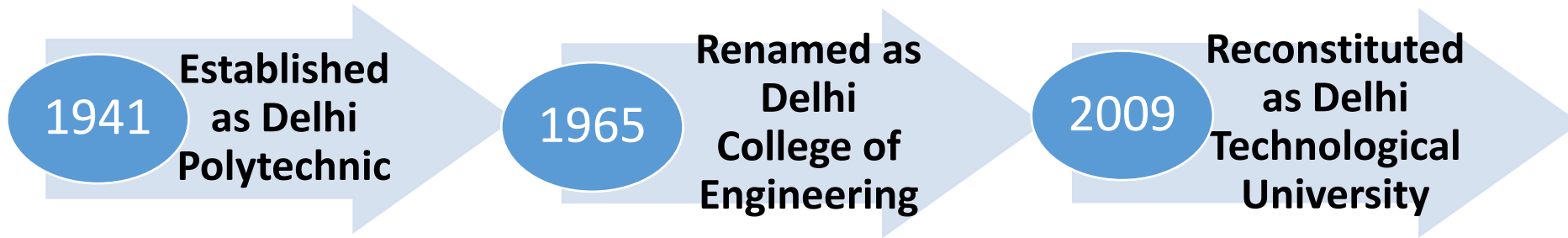
To be a world class university through education, **innovation and research** for the service of humanity.

Mission

- To establish centers of excellence in emerging areas of science, engineering, technology, management and allied areas.
- **To foster an ecosystem for incubation, product development, transfer of technology and entrepreneurship.**
- **To create an environment of collaboration, experimentation, imagination and creativity.**
- To develop human potential with analytical abilities, ethics and integrity.
- **To provide environment friendly, reasonable and sustainable solutions for local & global needs**



University: The Journey...





University: The Current Status

Two campuses

- Main campus : UG 11308 PG 1652 PhD 1239
Total 14199 students
- East campus : UG 770 PG 463 PhD 55
Total 1288 students

Academic programs

- Undergraduate : 17
- Postgraduate : 25 M. Tech.
1 M. Des. 4 M. Sc.
7 MBA 1 MA (Eco.)
- Doctoral programs

Departments : 16

Centers of Excellence : 15

NBA accredited programs : 13



International Ranking

Times Higher Education World University Rankings



	2023	2024	2025
World Ranking	601-800	801-1000	801-1000

QS World University Rankings



229 – Asian University Rankings – Southern Asia

701-750 : Asian University Rankings

National Ranking



NIRF Rankings	2021	2022	2023	2024
Rank (Engineering)	36	35	29	27
Rank (University)	42	38	61	48



Top Engineering Colleges in India 2024

India Today (2024)	Top Engineering Colleges	9 th
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Certification and Accreditations



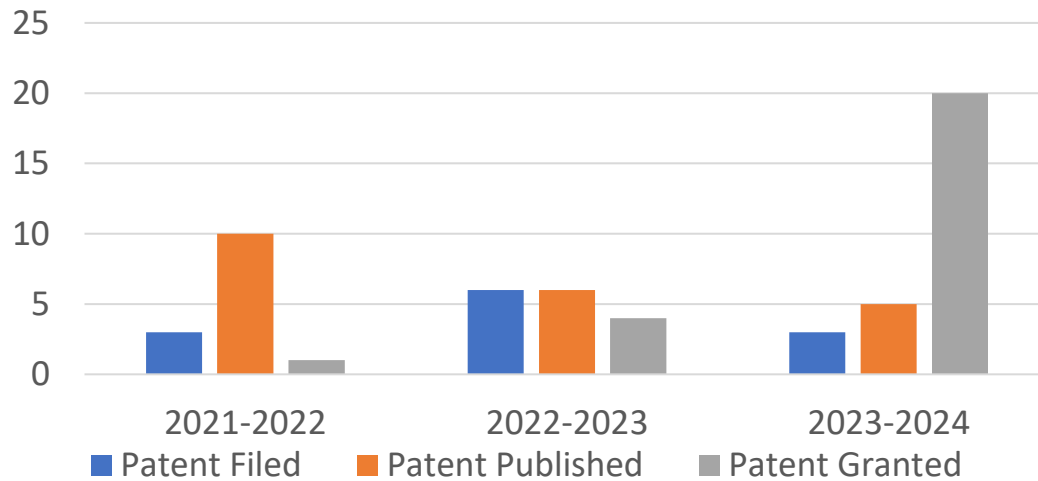
- **ISO 9001: 2015** Certification since 27.11.2018
- Accredited (First Cycle) with a Cumulative Grade Point Average (CGPA) of 3.22 with 'A' Grade by **NAAC** till 24.11.2024





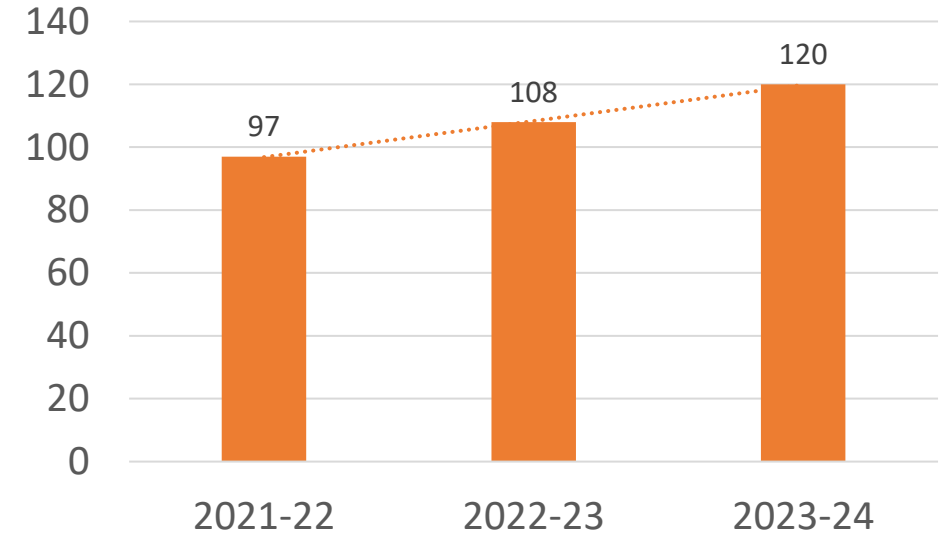
University Achievements/Recognitions

Patent data year wise 2021-2024



Year	2021-2022	2022-2023	2023-2024
Patent Filed	3	6	3
Patent Published	10	6	5
Patent Granted	1	4	20

Year-wise h-index (as reported by Scopus)



Year	2021-2022	2022-2023	2023-2024
H-Index	97	108	120

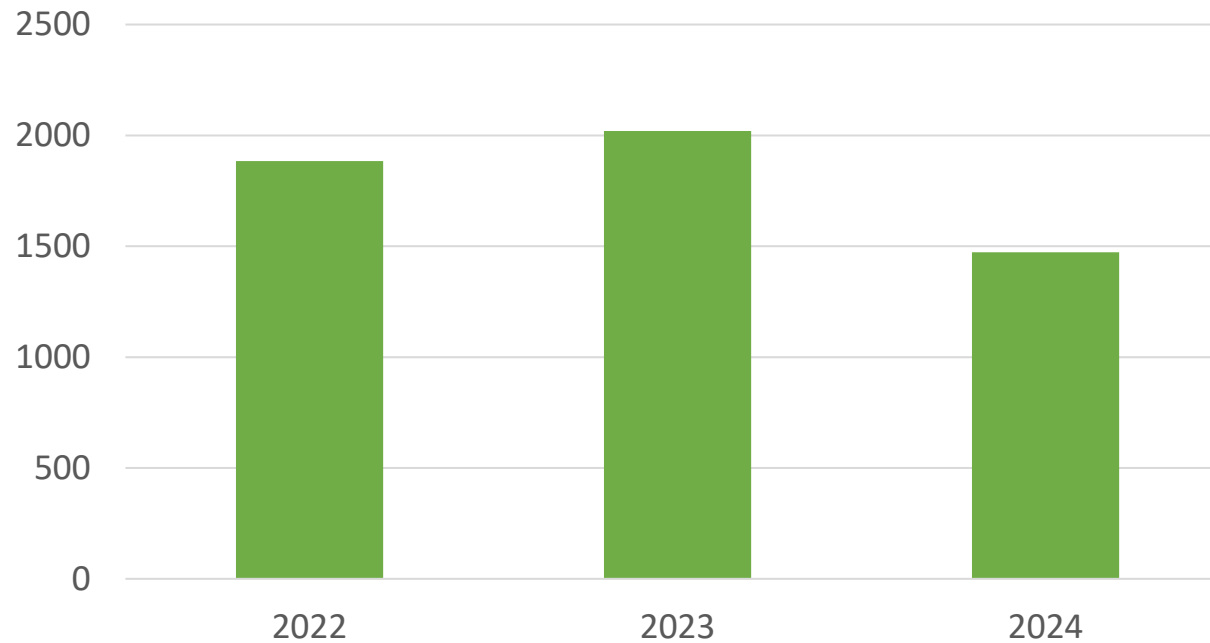


Scopus



University Achievements/Recognitions

Year-wise Comparison of Scopus-Indexed Publications



Scopus®

Year of Publication	2022	2023	2024
No. of Publications	1884	2020	1473*

*till date



Centres at the University

- Centre for Excellence for Science of Happiness
- Center for Electric Vehicle and Related Technologies
- Centre for Excellence in Energy Transition
- Centre for Community Development and Research
- Centre for Advanced Production and Industrial Engineering
- Centre for Excellence in Disaster Risk Reduction
- Centre for Advanced Studies and Research in Automotive Engineering
- Centre of Executive Education
- Centre for Value Based Education
- Entrepreneurship Development Centre
- Human Resource Development Centre
- Multidisciplinary Centre for Geo-informatics
- Nodal Centre of Excellence in Energy Transition
- Solar Energy Centre
- Vinod Dham Centre of Excellence for Semi-Conductor**
- Centre for Green Energy Materials**

Student Placements

Recruiters





Distinguished Alumni

Ajoy Choudhury

- 1958: Eminent Architect

Bhuvnesh Goswami

- 1959: Textile, Distinguished Alumni Professor, University of Clemson, USA

Sh. K.L. Chug

- 1960: Mech, Chairman Emeritus, ITC Ltd.

Dr. Durga Das Agrawal

- 1967: Mech., President & CEO, Piping Tech. & Products, Houston.



Distinguished Alumni

Sh. Raj Soin

- 1969: Mech., Chairman, Soin International, USA.

Prof. Yogesh Goswami

- 1969: Mech., Distinguished Professor of Solar Energy, University of Florida, USA.

Sh. Vinod Dham

- 1971: EC, The Designer of Pentium Chip.

Sh. Arun Goyal

- 1979: EE, IAS (Retd.): Former Secretary to Govt. of India, Cabinet Secretariat.



Raj Soin Hall

Raj Soin Hall with seating capacity of 3500 is a multipurpose complex to organise various events like Orientation program, Convocation, Cultural event, Sports events (Badminton) etc.





Notable DTU Start-Up Founders



**Sh. Vijay Shekhar
Sharma
Founder, PAYTM**



**Sh. Sunil Baijal
Co-founder,
Futures First**



**Sh. Praveen Sinha
Co-founder,
Jabong**



**Late Sh. Ambareesh
Murthy
Founder,
Pepperfry**



**Sh. Rohit Chadda
Co-founder,
Foodpanda**



**Sh. Paras Chopra
Founder,
Wingify**





Strategic Plan 2019-30

Education



Increase student strength from 11000 to 20000.
Increase UG & PG programs.
Increase DTU Ph.D. fellowships from 300 to 1000.
Increase University student internships from 200 to 1000.
Increase female students from 15% to 30%.

Research



Creation of new Centres of Excellence: Clean Energy Technologies, Storage Technology and Machine Learning.
Every faculty will have a research laboratory & research project
Increase number of Ph.D scholarship.
Invest 25% of revenue on research

Innovation & Entrepreneurship



Increase number of start - up companies from 19 to 100.
Establish a Technology Park of 50 companies.
Increase consultancy income from Rs. 10 crores to Rs. 50 crores.
Invest Rs. 10 crore per year in Innovative Projects.
Establish 10 successful companies from Incubator.

Infrastructure



Complete Stage-II, Phase-II construction of ₹1000 crores.
Invest in IT infrastructure from ₹1 crores to ₹10 crores every year.
Provide 100% ICT enabled services.
Invest 15 crores every year for library resources.

Finance



Increase the annual recurring expenditure.
Increase the annual expenditure of university.
Implement pre-audit system.
Increase the contribution from alumni from ₹7 crores to ₹100 crores.



Academic Departments

- Department of Applied Chemistry
- Department of Applied Mathematics
- Department of Applied Physics**
- Department of Biotechnology
- Department of Civil Engineering
- Department of CSE
- Department of Electrical Engineering
- Department of ECE
- Department of Environment Engineering
- Department of Information Technology
- Department of Mechanical Engineering
- Department of Software Engineering
- Department of Design
- Department of Humanities
- Delhi School of Management
- University School of Management & Entrepreneurship (East Delhi Campus)



List of UG Programs

Level	Program	Discipline	
Under Graduate	Bachelor of Technology (B.Tech)	Chemical Engineering	Electrical Engineering
		Mathematics and Computing	Electronics & Communication Engineering
		Engineering Physics	Environmental Engineering
		Biotechnology	Information Technology
		Civil Engineering	Mechanical Engineering
		Computer Science & Engineering	Production & Industrial Engineering
		Software Engineering	Mechanical Engineering with Specialization in Automotive Engineering
	Bachelor of Business Administration (BBA)	BBA	
	Bachelor of Arts- Honors (BA(H))	BA(H) Economics	
	Bachelor of Design(B. Des)	B. Des	



List of PG Programs

Level	Program	Discipline	
Post Graduate	Master of Technology (M.Tech)	Bioinformatics (BIO)	Signal Processing & Digital Design (SPD)
		Industrial Biotechnology (IBT)	VLSI Design and Embedded Systems (VLS)
		Computer Science & Engineering(CSE)	Material Science and Technology (MST)
		Artificial Intelligence (AFI)	Polymer Technology(PTE)
		Environmental Engineering (ENE)	Power Systems(PSY)
		Geotechnical Engineering (GTE)	Power Electronics and Systems (PES)
		Structural Engineering (STE)	Control and Instrumentation(C&I)
		Hydraulics and Water Resource Engineering(HRE)	Software Engineering(SWE)
		Geo- Informatics (GINF)	Data Science(DS)
		Information Technology	Thermal Engineering (THE)
		Microwave and Optical Communication Engineering (MOC)	Industrial Engineering and Management (IEM)
		Production Engineering (PIE)	Computer-Aided Analysis and Design (CAAD)
		Energy Systems and Management (ESM)	



List of PG Programs Cont.

Level	Program	Discipline	
Post Graduate	Master of Business Administration (MBA)	MBA	MBA(USME)
		MBA (Executive)	MBA(Business Analytics)
		MBA(Innovation, Entrepreneurship and Venture Development)(IEV)	
		MBA(Family Business & Entrepreneurship) (FBE)	
		MBA (Exec MBA Data Science and Analytics)	
	Master of Science (M.Sc.)	M.Sc. Mathematics	
		M.Sc. Physics	
		M.Sc. Biotechnology	
		M.Sc. Chemistry	
	Master of Design (M.Des)	M.Des (Interaction Design)	
		M. Des (LifeStyle and Accessory Design)	
		M.Des (Product Design)	
		M.Des (Transport and Service Design)	
		M.Des (Visual Communication)	
	Master of Arts (M.A.)	Economics	

About the Applied Physics Department

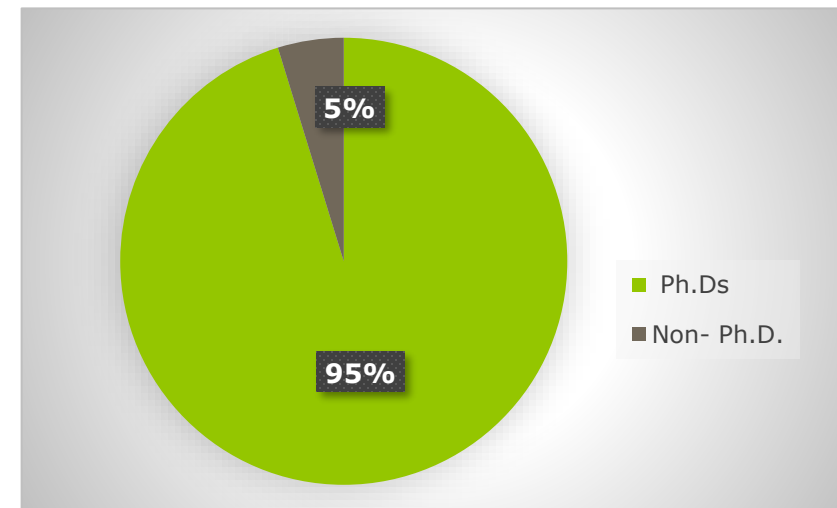
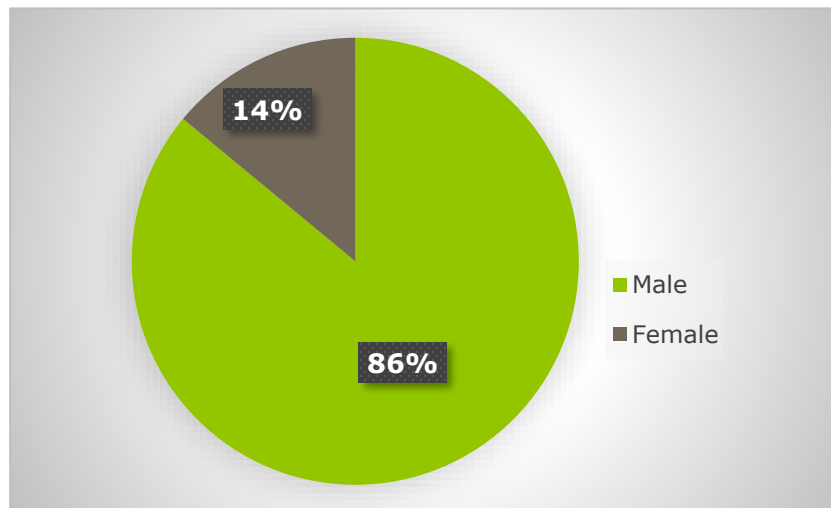
- **One of the oldest departments that was established way back in 1952 at the old Kashmiri Gate Campus, Delhi**
- **The Main Objectives of the Department is to provide Cutting Edge Research, Innovation and Education in the emerging areas of Science and Technology**
- **A DST-FIST Supported Department**

21 Faculty Members

Professors : 7

Associate Professors : 6

Assistant Professors : 8



SIGNIFICANT ACHIEVEMENTS OF THE DEPARTMENT

- **Our B.Tech (EP) program is accredited by National Board of Accreditation (NBA)**
- **DST-FIST supported Department (1.53 Crores)**
- **Centre of Excellence in Fibre Optics and Optical Communications (TIFAC-CORE)- 2.54 Crores**
- **Advanced Instrumentation Centre (AIC) – Central Facility**
- **Vinod Dham Centre of Excellence for Semiconductor and Microelectronics**
- **Sponsored Research Projects over 8 Crores from Government funding agencies**
- **Equipment's over 5 crores in Academic and Research Laboratories**
- **Our faculty have developed State-of-the-art Research Laboratories**
- **Students are going for Higher Studies in Esteemed Universities with good QS Global World Rankings in Abroad**
- **Students are placed in Reputed Companies**
 - ❑ **Highest Package: 38.67 Lakhs ; Average Package: 8.99 Lakhs (2019-2022)**
- **Students in Entrepreneurship**
- **Highest Number of Research Excellence Awards in DTU**
- **Highest Number of Citation Awards Awards in DTU**
- **Highest Number of Publications in SCI Journals in DTU**
- **Highest Number of Young Scientist Awards received from SERB-DST in DTU**
- **Highest Number of Research Projects in DTU**

Programs Offered		Annual Intake (CAY)
UG Program	B. Tech. Engineering Physics	115
PG Program	M. Sc. Physics M.Tech. (Materials Science & Technology)	60 25
Ph.D. Program	In different areas of Research	Variable

- **15 Undergraduate Laboratories**
- **4 Postgraduate Laboratories**
- **12 Research Laboratories (including TIFAC – Core)**

INSTITUTE-INDUSTRY INTERACTION

Stronger Glass Product and an Overview of IYoG (International Year of Glass-2022) in Association with The All-India Glass Manufacturers' Federation (AIGMF)


DELHI TECHNOLOGICAL UNIVERSITY
DEPARTMENT OF APPLIED PHYSICS


is
Organizing a Technical Talk
on

**Stronger Glass Products and an Overview of IYoG
(International Year of Glass)**


in Association with
The All-India Glass Manufacturers' Federation (AIGMF)

Venue: Pragyan Hall
Date: 30th November, 2022
(Wednesday) Time: 2:15 PM


 Scan QR code for Registration




CHIEF PATRON
Prof. Jai Prakash Saini
*Hon'ble Vice Chancellor
Delhi Technological University*




PATRON
Prof. Madhusudan Singh
*Registrar
Delhi Technological University*




SPEAKER
Prof. Arun Varshneya
*President, The Society of Glass Technology
President, Saxon Glass Technologies Inc.,
Professor of Glass Science & Engineering,
Emeritus, Alfred University, New York, USA*



CHAIRPERSON
Prof. A. S. Rao
*Head of the Department
Department of Applied Physics*




CO-ORDINATOR
Dr. M. Jayasimhadri
*Assistant Professor
Department of Applied Physics*



Mr. Purvish M. Shah
*Hon. Treasurer, AIGMF and Director Gopal
Glass Works Ltd. Ahmedabad*

Organising Committee Members:

<ul style="list-style-type: none"> • Prof. Suresh C. Sharma • Prof. Ravindra K. Sinha • Prof. Rinku Sharma • Prof. Vinod Singh • Prof. Rishu Chaujar • Prof. Nitin K. Puri • Dr. Mohan S. Mehata • Dr. Pawan K. Tyagi • Dr. Yogita Kalra • Dr. Ajeet Kumar 	<ul style="list-style-type: none"> • Dr. Amrish K. Panwar • Dr. Bharti Singh • Dr. Deshraj Meena • Dr. Renuka Bokolia • Dr. Sarita Baghel • Mr. Yogendra K. Meena • Dr. Richa Sharma • Dr. Mukhtiyar Singh • Dr. Kamal Kishor
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Mr. Vinit Kapur
*Secretary, AIGMF and Committee Member
IYoG*



Ascertaining a Skill Centre for Glass Glazing (ASCGG-2023)

Bringing Industry and Academia Together



NATIONAL WORKSHOP
on
ASCERTAINING A SKILL CENTRE FOR GLASS AND GLAZING (ASCGG-2023)
(BRINGING INDUSTRY AND ACADEMIA TOGETHER)

Organised by
Department of Applied Physics
DELHI TECHNOLOGICAL UNIVERSITY

SPEAKERS

 Mr. Gurmeet Singh Chairman Federation of Safety Glass (FOSG) Managing Director Gurind India (P) Ltd.	 Mr. Amit Malhotra President Confederation of Construction Products and Services (CCPS) Managing Director McCay Silicons Ltd	 Mr. Vinit Kapur Secretary The All-India Glass Manufacturers' Federation (AIGMF)
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CHIEF PATRON

Prof. Jai Prakash Saini
Hon'ble Vice Chancellor, DTU

PATRON

Prof. Madhusudan Singh
Registrar, DTU

CHAIRMAN

Prof. A. S. Rao
Head, AP, DTU

CONVENOR

Prof. Rishu Chaujar
AP, DTU

CO-CONVENOR

Dr. Mukhtiyar Singh
AP, DTU

Pragyan Hall
DTU, Delhi

AUGUST 11
2023

9:30 AM
ONWARDS

Scan to Register



CONVENTIONAL INDIAN EDUCATION SYSTEM

- Teacher Centric
- Theoretical Focused
- Examination Centric
- Memory Based Examination System
- Lack of Creativity (Not following blooms taxonomy)
- Most Rigid in Structure
- Not Multidisciplinary
- No Industry Exposure
- No Scope for Internships
- No multiple exists and entries
- No Major and Minors

Indian Robust Education System has produced world famous CEOs

Sunder Pichai, Satya Nadella etc.,

NATIONAL EDUCATIONAL POLICY (NEP-2020)

- Academic Flexibility and Freedom (Having Major and Minors; Accelerating and Deaccelerating the course; Multiple entries and exists)
- Multidisciplinary (We need to remove the disciplinary boundaries and give holistic development for students)
- Moto of Holistic development & Multi-disciplinary is to produce
 - (i) Critical Thinkers
 - (ii) Problem Solvers
 - (iii) Solution Providers
- Industry based curriculum to Produce Industry Ready workforce
- Creating Industry Sponsored Academic/Research Laboratories
- Providing Internship Opportunities to students
- Creating Skill Centres in Higher Education Institutes
- Having Collaborative Research Projects in collaboration with Industry
- Exposing the students for Multidisciplinary Problems

PURPOSE OF VISIT

- ❖ Working in Glass Science & Technology for the last 20 years
- ❖ Triangular collaboration (Academic + Research Institutes + Industry)
- ❖ Possible MOUs between DTU, Research Institutes and Glass Industries
- ❖ Industry Sponsored Academic/Research Labs/Skill Centres
- ❖ Exposing Industry Problems to students and getting possible solutions
- ❖ Possibility for Student Internships
- ❖ Applying for Extramural Funding in collaboration with Industry and Research Institutes
- ❖ Industry Corporate Social Responsibility (CSR)

- (i) Critical Thinkers
- (ii) Problem Solvers
- (iii) Solution Providers

**Hamara Sankalp
Viksit Bharat**



*Thank
you*



Prof. A. S. Rao

Head & Chairman, BOS

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Delhi Technological University



12th November 2024