



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

(Estd. by Government of NCT of Delhi in 1998)



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INDRAPRASTHA
UNIVERSITY



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UNIVERSITY SCHOOL OF BASIC AND APPLIED SCIENCES (USBAS)

About USBAS:

- Established in 1998, USBAS was one of the foundation schools of GGSIPU (Established in 1998 by Government of NCT of Delhi).
- Teaching cum research designed curriculum in various disciplines viz. Physics, Chemistry, Maths, Nanoscience and Engineering Physics.
- Ph.D. programmes in Physics, Chemistry and Mathematics.
- Highly qualified and experienced faculty. Great alumni network and industrial tie-ups.
- Well equipped laboratories with advanced research facilities.



ACADEMIC PROGRAMMES OFFERED BY USBAS

Programme Name	<i>Programme Coordinator</i>	Duration (in years)	Intake
Ph.D.	Dr. Abha Aggarwal	As per university norms	As per vacant slots
M.Tech. (Engineering Physics)	Dr. S. Neeleshwar	2	18
M.Tech. (Nano Science and Technology)	Prof. Vaishali Singh	2	15

FACULTY PROFILE (ENGINEERING PHYSICS)



Dr. Avinash C Sharma

Area of Specialization:
Theoretical Particle Physics

Research Publications:
http://www.ipu.ac.in/usbas/mtechep/acs_publ.php



Dr. Shruti Aggarwal

Area of Specialization:
**Solar Photovoltaics,
Crystal Growth,
Thermoluminescence**

Research Publications:
http://www.ipu.ac.in/usbas/mtechep/sa_publ.php



Dr. Anu Venugopalan

Area of Specialization:
Quantum information,
Confined quantum systems
(Theory)

Research Publications:
http://www.ipu.ac.in/usbas/mtechep/av_publ.php



Dr. Rajesh Kumar

Area of Specialization:
Materials Science,
Nanotechnology, Energy
Storage Devices

Research Publications:
http://www.ipu.ac.in/usbas/mtechep/rk_publ.php

FACULTY PROFILE (ENGINEERING PHYSICS)



Dr. S Neeleshwar

Area of Specialization:

Nanomaterials,
Thermoelectric materials,
Magnetic Materials

Research Publications:

http://www.ipu.ac.in/usbas/mtechep/sn_publ.php



Dr. Kriti Batra

Area of Specialization:

Theoretical Atomic and
Molecular Physics, Quantum
Heterostructures

Research Publications:

http://www.ipu.ac.in/usbas/mtechep/kb_publ.php



Dr. Anjana Bagga

Area of Specialization:

Optical and Transport properties
of semiconductor nanostructures,
nanostructured thermoelectric
materials, solar cells

Research Publications:

http://www.ipu.ac.in/usbas/mtechep/ab_publ.php



Mr. Mukesh Kumar

Area of Specialization:

Lasers and Photonics

Why M.Tech (Engineering Physics)

- **This is the first ever course (Approved by AICTE) at post-graduate level in India.**
- **The programme is planned in such a manner so as to bridge the gap between Engineering and Science streams.**
- **It meets the demands of the technical manpower required in several new emerging areas.**
- **It is interdisciplinary and has courses from various fields of applied sciences and Computational Science. In Applied Sciences, some of the focus areas are Photovoltaics, Embedded systems, Computational Physics, Nanoscience and Technology, Nuclear Technology, Ion Beam Technology, Photonics.**
- **In Computational Sciences, courses on programming (C++, Java, Oracle etc.), networking, data base management systems, computer architecture, multimedia and visualization technology etc. are covered.**

About M.Tech (Engineering Physics)

This course prepares students to work in Industries/Institutes in following fields :

- Solar Photovoltaics
- Embedded Systems
- Nanoscience and Technology
- Nuclear Technology
- Computational Simulations
- Visualization Technology
- Networking

**M.Tech (EP)
is the first
ever course
at post-
graduate
level in
india**

Highlights of the Programme

- **The programme is approved by AICTE.**
- **Regular interactive sessions with eminent physicists and physicist turned entrepreneur/manager/administrator as part of the curriculum.**
- **Presentations cum Comprehensive Viva-Voce in each semester.**
- **Project work by actual participation in Industry/ national research laboratories like DAE, SSPL, LASTEK, NPL, IUAC, VECC, CDAC etc.**
- **Working in the ongoing research projects at USS.**
- **Visit to Industry/Research labs.**
- **Students attend the national and international level conferences organized by FICCI, ASSOCHAM, SESI, El group and various universities/institutes/ organizations.**

THRUST AREAS

Solar Photovoltaics

Energy

Nano Science and Technology

Nuclear Technology

Embedded Systems

Computational Physics

IT based courses- Artificial Intelligence, Internet of Things, Quantum Computing etc.

OUR STUDENTS ARE PLACED AT:

Google



PANalytical

IBM

nagarro

BERGEN



MAGNETI
MARELLI

insta power



ELIGIBILITY

CET Code: 150

**CET Exam is mandatory
for all Non-GATE
Candidates.**

**B.E/B.Tech (Electronics/Computer
Science/Electrical/Engineering Physics/IT/IC)
or equivalent**

OR

**Post Graduation in Physics/Applied
Physics/Electronics/Mathematics or
equivalent with minimum 55% marks in
aggregate in the qualifying degree. The
applicant **MUST** have studied Physics at the
undergraduate level.**

**GATE qualified
candidates will be
given first
preference.**

**Non-GATE students
will be selected
based on merit list
of CET rank.**

FELLOWSHIPS

- GATE Fellowships
- Some Industrial Fellowships may be available as per Industrial requirement.

Note : For Economically Weaker Sections (EWS), University may provide financial assistance.

Interested students may visit International Research Institutes for their Minor and Major Projects. Probable Countries : Germany, Taiwan, USA etc.

Last Date to Apply- 31st July, 2020

HOW TO APPLY?



Admission brochure carrying all the details and the application form can be submitted online through the university website.



For latest update and details keep visiting university website.
(Please visit ipu.ac.in for latest updates and details).



Kindly refer Admission Brochure for more details
Last Date of Submission : 31st July, 2020



Application form link:
[http://www.ipu.ac.in/usbas/mtechepmain.p
hp](http://www.ipu.ac.in/usbas/mtechepmain.php)



For more information, visit
<http://www.ipu.ac.in/usbas/mtechep/index.php>

CONTACT US

**Programme Coordinator:
(M.Tech. Engg. Physics)**

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