



PHYSICS DEPARTMENT HANDBOOK YEAR - 2020-21

A Guide by ISCP Team



Address:
Physics Department, IIT Bombay,
Infinite Corridor, Academic Section,
Powai, Mumbai, Maharashtra 400076

Disclaimer

Though the ISCP (Institute Student Companion Program) has taken care while compiling the handbook, neither the council nor the Institute can be held responsible for errors/inadequacies that may inadvertently creep in. This handbook cannot be used as a basis for making a claim on facilities/concessions/interpretation of rules/statues or the like. If there is some critical information to which the reader of this handbook refers, it is with his or her own responsibility that it is put to use, with cross verification, if need be.

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Message from The Head of the Department....

At the outset, let me extend my heartiest congratulations to you on successfully qualifying the JAM 2020. I understand the amount of hard work and dedication that you have put in to achieve this and I am sure that you will continue to put the same for achieving greater heights during your stay here. The fact that we are in an unprecedented situation world over due to the pandemic should not deter you from your goals and objectives. We have to take it head on and work even harder to beat it! You have to show that human will is much above such irritants.



As you all know, we are forced to go online at least this semester. We will try our best to see that the rigour with which we have been delivering the lectures offline is preserved even in this new mode. We have made some adjustments in the curriculum to see that you don't have certain labs which cannot be done online. At the same time, we made sure that there is no extra theory course load added to the first semester as we felt that it was not in the best academic interest of the students. We will work out methods to offer you the postponed lab courses as soon as you are admitted physically into the campus. We are also in the process of finding out students who are not well equipped with laptop/desktop/internet so that we can offer some help.

Taking about the Physics department of IITB, it is one of the oldest departments of the institute and one of the most vibrant Physics departments in the country today. I feel very proud to inform you that for the last couple of years, our dept. is ranked **first** in the country (among the physics departments) according to the QS world ranking. We have 46 faculty members, about 160 B.Tech. students, 80 M.Sc. students and 120 Ph.D. students. There are about 25 Post-Doctoral fellows, working in different research groups. We also have support staff of about 25 people. We have all modern teaching laboratories and a well-equipped department library. A computer lab only meant for students is also available for you.

The main areas of research in the department are (i) Condensed Matter Physics, (ii) Astrophysics/Cosmology/Gravity, (iii) High Energy Physics, (iv) Photonics and (v) Statistical Physics/Bio Physics/Soft Matter Physics/Non-linear Dynamics. In all these areas, both theoretical as well as experimental research is going on. There is ample scope for you to interact with the faculty members to get involved in the research activities, in addition to your normal academic work. I encourage you to take up such assignments and get more exposure.

Many of MSc. alumni have performed very well in their career and are in leading positions in academia/industry/civil services/corporate sector in India or abroad. With the training that you get here, I am sure you will all be able to rise to such levels of excellence. Please make use of every opportunity and facility that are available in the department and in the institute to achieve this, develop your personality and come out in flying colours.

With best wishes,

K G Suresh
Head of Department
Physics, IIT Bombay

Message from Institute Student Companion Team....

Dear New Entrants,

These are tough times, but you are not alone.



We welcome you to one of the most prestigious institutes in the nation. Congratulations on having achieved this incredible feat. You are about to become part of a culture that will leave its traces within you for a long, long time, even if it begins 'untraditionally.' You will be the ones witnessing the first term to happen entirely online in the history of IIT-Bombay. It might feel overwhelming, and for all the right reasons, we must say. There will be several things you might be worried about, from coping up with the academics in online mode to missing out on things; however, as we said, "You are not alone."

Institute Student Companion Programme (ISCP) is a student body with the primary objective of building a relationship of trust and comfort between the final year students and the incoming students of the PG programmes. We are here to help you in getting familiar with the ways of IIT-B, which is even more critical in these times. You will become a part of a culture where people want to perfect their craft and thus work day in and day out at it. The scope of these is not limited just to academics. Various online events are and will be organised by the cultural, technical, and sports clubs in IITB, like Code in Quarantine, Fitness challenges, Dance Challenges, etc. Managing these along with online lectures might seem daunting at first, and hence, to help you with a world of problems including these, we assign you a Student Companion.

The Student Companions are self-motivated volunteers who will genuinely help you in low and high tides as an act of giving back what they received from the programme. You can look up to the team for any form of support, any information before venturing out into an unknown domain, be it academics or extracurricular activities. You can reach out to us for any issue regarding the curriculum, facilities provided, your physical, social or mental health, and last but certainly not the least, reach out to have a chat with us because that is what we are for, for you.

The COVID -19 pandemic has affected all of us. For now, Health concerns prevent your arrival in our beautiful lush-green IIT-B campus, it also prevents your participation in hostel activities, sports, cultural activities. There are many things here at IIT-B waiting for you, but the most important thing is the campus, and the buildings do not define IIT-B. It's you. You set the culture, the activities, you represent IIT-B to the world, and you make IIT-B what IIT-B is. So, knowing that time flies at IITB, we strongly suggest participating in things that happen online other than attending lectures, make memories, reach out to us for any queries, and relax with the comfort of your home. At least till we get an opportunity to welcome you into the campus, let's be safe, let's be optimistic and let's keep our learning spirits high.

Looking forward to getting to know you. Giving out some motivation for these difficult times, we end with a quote by Albus Dumbledore: "Happiness can be found, even in the darkest of times, if one only remembers to turn on the light."

	<p>Aakrit Anshuman (Overall Coordinator)</p> <p>8904059856 Email</p>		<p>Satyam Rathore (Overall Coordinator)</p> <p>7389102399 Email</p>
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Stay Safe!

Overall Coordinators,

Institute Student Companion Programme (2020-21) IIT Bombay

Email: iscp@iitb.ac.in



Welcome Note from PG Academics Council....

Dear Freshmen,

Congratulations to all freshmen for making it to one of the premier institutes of the country. Despite the stiff competition, you all managed to come out with flying colours. So on behalf of the PG students of IIT Bombay it is my honour to welcome you all here. So now all of you are a part of IIT Bombay PG community or “PG JUNTA” as we call them. The institute has a wide range of facilities and services to offer to all its students. This will not only ensure a fruitful educational experience but also promote overall skill development. In the institute there are several student run bodies, that focus on development of skills, sports and extracurricular activities such as music, dance, drama etc. Along with academics we urge you all to explore and make the the most of the excellent facilities that the institute has to offer.



As the Institute Master’s Representative, my entire team and I aim to address your grievances and help you to the best of our abilities. This time since the first semester for you all is going to be online, you might have a lot of queries in your mind. Please feel free to contact us any time. Our council PGAC is one that is for the PG students, of the PG students and most importantly by the PG students. So whenever you face a problem, we are always there to help you out. Supporting the students in their academic endeavour is also our foremost priority and we will try to improve the IITB experience in all the ways we can. On this note, I once again welcome you all to IIT Bombay, hoping to welcome you all back in the campus as soon as situation gets better, and wishing you every success in your future endeavours.

Thank you,

Sohini Dasgupta

Message from Department Coordinator....

Dear Juniors,

Hearty congratulations on this incredible feat! On behalf of the Physics Department, I welcome you to the finest institute in India. As you already know, IIT Bombay has decided to conduct this semester online. This online semester will be a complete new experience for you all. However, you don't have to worry, as we are always with you throughout your journey.

Last year, when we were new students at IIT, our mentors too, always guided us and are still there, whenever we need any help. Now its our turn to give it back. We encourage you to make the most out of your time, spent here. Your college experience will be what you make out of it, and your opportunities will only be limited by the limits you place on yourself.

As you are going to start with a new academic year, do take advantage of the various services available, to help you in achieving your full potential. There are numerous of research works going on various topics, in our department. I would suggest you guys to make maximum out of it and explore various fields to know your interest. Never hesitate to contact us regarding any issues or queries.

IIT Bombay offers many programs to keep you on the road to graduation and professional success, such as Internships/Placements and many more workshops on improving your skills. I encourage you to get involved, to participate in various activities and to take part in the array of opportunities and initiatives by the Institute.

Supporting you is central to our mission at ISCP. We are here to guide you as you become the best version of yourself.

Remember to make it a great year. I will see you soon.

Cheers,

Abhishek Singh

Department Coordinator, ISCP

8447544363

Email



History:



A high-powered committee of the Government of India, headed by Sir Nalini Ranjan Sarkar, a businessman, educationist, industrialist and public figure, recommended in 1946 the establishment of four higher institutes of technology on the lines of their counterparts in Europe and the United States to set the direction for the development of technical education in the country. The committee had recommended the establishment of institutes of national importance in different regions of India. The first of the IITs was set up in Kharagpur (whose other claim to fame is that it has the longest railway platform in the world) in the state of West Bengal in 1950 at a site in Hijli village which used to be a detention camp. Four more IITs followed in quick succession. IIT Bombay was established in 1958, followed by those at Madras (1959), Kanpur (1959) and Delhi (1961). Though the names of the cities Bombay and Madras were later changed, respectively, to Mumbai and Chennai, the institutes at these two places retain their original names. So our institute is IIT Bombay, often shortened to IITB.

These institutes were designed to provide the necessary dynamism and flexibility of organisation in the light of the expanding knowledge and changing socio-economic requirements of modern society. Planning for the institute at Mumbai began in 1957 and the first batch of 100 students was admitted in 1958. The institute campus at Powai extends over 200 hectares and is situated in picturesque surroundings with the Vihar and the Powai lakes on either side and green hills in and around. In 1961, by an Act of Parliament, the institute was declared an institution of national importance and was accorded the status of a university with the power to award its own degrees and diplomas. IIT Bombay was established with the cooperation and participation of the UNESCO, utilising the contribution of the government of the then USSR. The institute received substantial assistance in the form of equipment and expert services from the USSR through the UNESCO from 1956 to 1973. It received 59 experts and 14 technicians from several reputed institutions in the USSR. The UNESCO also offered fellowships, numbering 27, for training Indian faculty members in the USSR. Under the bilateral agreement of 1965, the Government of USSR provided additional assistance to supplement the Aid Programme already received by the institute through UNESCO.

UR DEPARTMENT:

History:

IIT Bombay and its Department of Physics started in June 1958 in the SASMIRA (Silk and Art Silk Manufacturing Institute Research Association) building in Worli, Bombay. There were only two science departments in the Institute at that time. These two departments moved in 1960 to a single storey building in Powai, which was later to become the Stores Building. A spacious multi-storey building for the Physics Department became ready in 1964. During the initial stages, the Department was headed by Drs. R. P. Singh (1958-1966), B. N. Bhattacharya (1967-1968), P. P. Kane (1969-1970), and C. M. Srivastava (1971-1973). After extensive discussions in the academic bodies of the Institute, the description of Physics courses were changed from Chemical Physics to Physics, and a two year (post-B.Sc.) M. Sc. programme was initiated. Later, in 1972, a five year integrated M.Sc. was also initiated. However when the five years B. Tech. the programme was replaced by a four year one, the attraction of the integrated five-year programme was adversely affected and so it was terminated in 1983. However, an entirely new interdisciplinary programme, namely B. Tech. in Engineering Physics, was developed. A few faculty members in the Physics Department had to spend a lot of time and effort in order to get this programme approved in the Institute.

At Present :

The Physics department at IIT Bombay is one of the premier places in the country, providing world-class undergraduate and postgraduate education, as well as pursuing research in diverse areas of fundamental and applied physics. The department is one of the few places offering a B.Tech academic degree, through its Engineering Physics programme. This unique course blends the best of contemporary physics and electrical engineering, to create professionals who are equally comfortable with both science and technology. The department also provides 2-year M.Sc. programme.

DEPARTMENT COUNCIL :

Department Council is a small body of representatives of B.Tech., Dual Degree and MSc students, generally elected by an election every year. This body provides a single point of contact to all the Professors and students for transferring queries, suggestions and complaints both ways. It also represents the department in institute level students' bodies like Students' Academic Council, Placement Cell and SARC. The council aims to help students in every possible manner in their academic issues, department infrastructure and facilities and help in placements and applications for higher studies

Department Council Member :

- **Department General Secretary:** He is the overall head of the Department Student's Council. The DGSec represents the opinion of students in all matters pertaining to them and conveys this to relevant authorities and take actions accordingly. He is an official permanent member of the DUGC (Department Undergraduate Committee) which takes policy decision pertaining to coursework and academic rules of Engineering Physics B.Tech., Engineering Physics DD. He has key permissions and administrative biometric access to Department Library and Department Computer Lab.

Sougata Guha

[Email](#)

- **M.Sc Representative:** He is representative of both 1st and 2nd-year M.Sc students. He is the point of contact for M.Sc students to DGSec and other council members. He represents M.Sc students in DPGC ((Department Postgraduate Committee) which takes policy decision pertaining to coursework and academic rules of M.Sc physics.

Sashikanta Mohapatra

[Email](#)

- **SAPD Head:** He is the head of the Students Association Of Physics Department (SAPD). The SAPD Head is responsible for conducting non-curricular activities and events like Department Trips, Kurta Day, informal Sessions and many more.

Neel Singh

- **Department Placement Coordinators:** He helps in the registration of final year students in Placement Cell, He conveys information regarding placements. They gather and represent the opinion final year students to the Placement Cell.

Shyam Kumar Raghuwanshi

[Email](#)

IMPORTANT ACADEMIC INFORMATION:

The Academic Curriculum at IIT Bombay is completely different from what most of you have had during your undergrads. So it is instructive to go through the following Carefully:

- A. Once you are enrolled and have completed the initial admission process, you will be registered here to the Academic Section or ASC website.
 - B. Professor K.G. Suresh is HoD of Department of Physics and Professor **Archana Pai** is your faculty advisor. You have to reach out to them in case of any questionnaire about academics. You will be introduced to them on the orientation day itself. Apart from that, we will also have a department orientation, where you will be introduced to dept and document verification will take place.
 - C. Three types of courses are there in the institute, namely: Core Course, Credit Course and Audit Course. Core courses are compulsory which you necessarily have to take. Credit courses are not part of the curriculum but if some subject interests you the most, you can take this as credit. Marks of these kinds of courses are added to your mark-sheet. Audit courses, same like Credit Courses but their marks don't count towards your final score. So even if you take an audit course and fail it, it won't affect your mark sheet, unlike Credit Courses.
 - D. One has to consult FacAd in case of taking any Credit/Audit course.
 - E. In the second year, you have an option to do a research project, prototypes of which are mentioned in the Master's Thesis section.
 - F. There is relative marking but in some cases, it is up to the course instructor.
 - G. In general, there are four exams, namely: Quiz1, Midsem, Quiz2 and End Sem(In that sequence) but, again, it is entirely up to the instructor, you may have surprise quizzes too.
 - H. All the assignments, Quiz and Exam solutions and other study material will be provided through Moodle.
- For more grading details ([Click Here](#)).
 - Academic Calendar 2020-21 ([Click Here](#))









ORIENTATION

Student	Orientation	Registration	Instructions Begin
New Entrants (PG)	10.08.2020 (Monday)	10.08.2020 (Wednesday)	10.08.2020 (Monday)

FOR REGISTRATION DETAILS, PLEASE GO THROUGH THIS [LINK](#)

S

tudent Coordinators -

	<p>Shanu Arora (Student Companion)</p> <p>8868816789 Email</p>		<p>Ashish Bhargava (Student Companion)</p> <p>9057249224 Email</p>
	<p>Vivek Tiwari (Student Companion)</p> <p>9792735042 Email</p>		<p>Kunal Vyas (Student Companion)</p> <p>9870440702 Email</p>
	<p>Sudipta Borah (Student Companion)</p> <p>9634781727 Email</p>		<p>Sashikanta Mohapatra (M.Sc. Representative)</p> <p>9040033790 Email</p>
	<p>Shyam kumar Raghuvanshi (Placement coordinator)</p> <p>8750867425 Email</p>		<p>Niket Shah (AURAA, PGAC)</p> <p>9664315911 Email</p>

INTERNSHIP - 2020

Name	Internship	Roll No.	Email ID
Shanu Arora	KIT Germany	195120024	Email
Eleena Gupta	University of Luxembourg	195120026	Email
Akhil Chahal	KIT Germany	195120012	Email
SashiKanta Mohapatra	KIT Germany	195120041	Email
Harshit Pandey	University of Luxembourg	195120039	Email
Kunal Vyas	University of Bristol	195120004	Email
Sudipta Borah	IISER Kolkata	195120030	Email
Paras Chopra	IISER Kolkata	195120028	Email
Ashish Bhargava	LPS Orsay	195120013	Email
Debjyoti Biswas	LPS Orsay	195120046	Email
Abhishek Singh	Indiana University, USA	195120008	Email
Krishna Kumar Dubey	Indiana University, USA	195120040	Email
Rathindra Nath Das	Indiana University, USA	195120044	Email
Kiran Estake	Indiana University, USA	195120006	Email

**** INTERNSHIPS FOR YEAR 2020 CANCELLED DUE TO COVID-19.**

**** TO KNOW MORE ABOUT INTERNSHIPS CONTACT SHANU ARORA (INTERNSHIP COORDINATOR).**

UNIVERSITY SELECTIONS/PLACEMENT - 2020

Name	University/Company	Roll No.	Email ID
Swarnim Shirke	IUCAA,Pune	185120021	Email
Dibyandan Bhowmick	ICTS, Bengaluru	185120027	Email
Rahul Verma	TIFR, Mumbai	185120012	Email
Vishal Malik	TIFR, Mumbai	185120001	Email
Venkata Sai Prasanna	IISc, Bangalore	185120020	Email
Ritesh Bachhar	IIA	185120011	Email
Rohit Kumar	Indiana University, Bloomington, USA	185120031	Email
Anurag Dwivedi	Indiana University, Bloomington, USA/Tom's G (education)	185120018	Email
Angha S.	Aix Marseille University	185120038	Email
Mouli Hazra	Abe school of photonics, Germany	185120006	Email
Jaideep Lohia	Narayana group education	185120024	Email
Sandeep Jangir	Dolat (Analytics)	185120017	Email
Siddhi Garg	BYJU's (Education)	185120040	Email

M.Sc. Physics Discussion Group -

'Great minds discuss ideas, average minds discuss events, small minds discuss people'

-Eleanor Roosevelt

Greetings to all the great minds! We know you have worked hard to get here. And why? Because you love physics and the beauty it unravels in nature. Because you have that thirst for knowledge, the curiosity to know more and the patience to understand complex phenomena. And that is why, we have something to quench your thirst for knowledge and help grow and nurture your love for physics. Presenting to you, the M.Sc. Physics Discussion Group. An initiative by the 2019-21 M.Sc. physics batch, this group is a semi-formal discussion group where we discuss interesting physics amongst ourselves, invite faculty/students over for sharing their knowledge and even help each other in areas where our batchmates need help. It is customisable to suit our needs and priorities! We hope you can derive benefit from this initiative.

Welcome to your amazing journey of romancing physics! We wish you a memorable experience. Cheers!

Niket Shah

Convener, M.Sc. Physics Discussion Group

STUDENT WELLNESS CENTRE (SWC) :

After securing admission at the Institute and starting your stay here, you may feel that a lot of parameters around you are different. You would have more responsibilities to handle at the hostel and at the academic level. Take heart, you will not be the only one. There are a few issues that almost everyone in the Institute faces initially like academic concerns, social (family and peer) pressure etc, leading to feelings of loneliness, low confidence, anxiety, stress, anger and sadness, to name a few.

It is important to understand that students often lose their focus and give in to these pressures. If not attended to at the right time, this could lead to poor performance -- both academically and personally.

To help you refrain from losing focus and being unhappy, we as your companions encourage you to approach SWC for any problem that you are facing- be it academic, emotional, social or financial-without hesitation.

Counselling provides an opportunity for individuals to learn to make better choices, improve interpersonal skills, develop confidence and increase educational effectiveness. In a one-on-one meeting with a counsellor, students are helped to explore and express feelings, examine beliefs and ways of thinking about their present situation, reflect on patterns of behavior, and work toward making healthier and happier changes.

GENDER CELL :

IIT Bombay's Women's Cell has been in existence since 2002. With the enactment of the Institute's policy on sexual harassment, the Cell has been renamed the Gender Cell (GC). In recognition of the Institute's belief that its employees and students have a right to be treated with dignity and respect, the Cell works proactively towards developing a safe and secure environment for employees, and to ensure that all students may gain their education without fear of prejudice, gender bias, hostility or sexual harassment. The IIT Bombay Gender Cell (GC) inquires into complaints of sexual harassment through its Internal Complaints Committee (GC-ICC). The GC and GC-ICC strive to work towards an egalitarian environment where men and women are afforded equitable treatment and equality of opportunity conducive to their professional growth.

IMPORTANT CONTACT/LINKS:

Useful Links:

1. Physics Dept Website.....([Click Here](#))
2. ISCP Website([Click Here](#))
3. All Student Activities([Click Here](#))
4. Student Wellness Centre.....([Click Here](#))
5. Gender Cell.....([Click Here](#))

Email & WiFi related links :

1. [Software centre](#)
2. [Webmail](#) - Setup your webmail in Gmail app.

Facebook links :

1. [Buy and Sell @ IITB](#)
2. [ISCP Facebook Page](#)

Useful Apps :

1. [InstiApp](#) - Info about events, mess menu, placement blog and maps.
2. [M-indicator](#) - Navigate through entire Mumbai with ease.
3. [SAFE-IITB](#) - recommended for online quiz & test.



Emergency numbers:

1. Ambulance.....022- 2576 (1101/1110)
2. Hospital.....022- 2576 (7051)
3. Main Gate.....022- 2576 (1123)
4. Y Point Gate022- 2576 (1121)
5. Security.....022- 2576 (1100)
6. Quick response team.....9167398598/9167398599/9833337979/9833338989

Note-The numbers inside the brackets are extension numbers. If you are calling from a landline inside IIT Bombay, use only the 4 numbers in the brackets.

IITB related questions on Quora.....([Click Here](#))

M.SC. BATCH 2019-21

NAME	PLACE	UG COLLEGE	Email ID
Abhishek Singh	Banswara, Rajasthan	Motilal Nehru College, Delhi University	Email
Niket Shah	Mumbai, Maharashtra	Mumbai University	Email
Ashish Bhargava	Jhalawar, Rajasthan	Govt. P. G. College, Jhalawar	Email
Akhil Chahal	Narwana, District Jind, Haryana	Rajdhani College, University of Delhi	Email
Amrit gupta	Gopalganj, Bihar	Banaras Hindu University (BHU), Varanasi	Email
Ajay kumar meena	Dausa, Raj.	University maharaja college jaipur	Email
Rahul Verma	Jhunjhunu, Rajasthan	Punjabi university Patiala, Punjab	Email
Shyam Kumar Raghuwanshi	Ashoknagar(MP)	ARSD college(Delhi University)	Email
Sashikanta Mohapatra	Pipili, Dist-Puri, State-Odisha	College of Basic Science and Humanities, OUAT, Bhubaneswar	Email
Vishwad KS	Bangalore, Karnataka	Mysore University	Email
Sudarshan Das	CoochBehar, West Bengal	Mathabhanga College(CoochBehar Panchanan Barma University)	Email
Akshita Jain	Bundi, Rajasthan	RIE Ajmer	Email
Ishita Modak	Balurghat, West Bengal	Jadavpur University	Email
Sudipta Borah	Guwahati, Assam	IIT Roorkee	Email
Shanu Arora	U.S.Nagar, U.K	Delhi University	Email
Kiran Estake	Aurangabad, Maharashtra	Government College of Engineering, Aurangabad	Email
Eleena Gupta	New Delhi	St. Stephen's College, Delhi University	Email
Vivek Tiwari	Basti, Uttar Pradesh	Banaras Hindu University	Email
Pijush Das	District Cooch Behar, State West Bengal	Dinhata College, Cooch Behar Panchanan Barma University	Email
Aditi kumawat	Jaipur, Rajasthan	Rajasthan University	Email
Bhiyog	Alwar, Rajasthan	Maharshi Dayanand University, Rohtak, Haryana, 124001	Email
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Kunal Vyas	Mumbai	K. J. Somaiya College of Engineering	Email
Debajyoti Biswas	Kolkata, West Bengal	Scottish church college	Email
Vljay Kumar Kumawat	JAIPUR, RAJASTHAN	Rajasthan University	Email
Agam Verma	Pathankot, Punjab	Panjab University, Chandigarh	Email
Krishn Kumar Dubey	Jaunpur, UP	BHU, Banaras	Email

NAME	PLACE	UG COLLEGE	Email ID
Pavan Kumar Meena	Jaipur, Rajasthan	University of Rajasthan	Email
Pravesh Sharma	Gwalior, Madhya Pradesh	Rajiv Gandhi Prodhhyogiki Vishvvidyalaya	Email
Archana Maji	Asansol (Paschim Bardhaman, West Bengal)	St. Xavier's College, Kolkata	Email
Sujit Kumar Pradhan	Kendrapara, Odisha	Utkal University, Bhubaneswar, Odisha	Email
Paras Chopra	Delhi	IIT Delhi	Email
Harshit Pandey	Lakhimpur-Kheri, UP	Banaras Hindu University	Email
Amit Ghosh	Kolkata, West Bengal	Scottish Church College, University of Calcutta	Email
Aman Gauttam	DIGGI DISTRICT TONK RAJASTHAN	S.S. JAIN SUBODH P.G. COLLEGE JAIPUR	Email
Rathindra Nath Das	Nadia, West Bengal	Ramakrishna Mission Residential College Narendrapur, Kolkata	Email
Koushik Das	Puruliya, West Bengal	Bankura Christian College, University of Burdwan	Email
Dibakar Roy	Nabadwip, Nadia, West Bengal	UNIVERSITY OF KALYANI	Email
Sumit Kumar yadav	Hardoi, Uttar pradesh	Hindu college (delhi university)	Email
Anchal jaiswal	Uttar pradesh , chandauli	Mahatma gandhi kashi vidhyapith , varansi	Email
Sarvesh Padav	Mumbai	Mumbai university	Email
Uttara S.	Delhi	DDUC, Delhi University	Email
Lokesh Kumar	Hanumangarh, Rajasthan	Maharaja Ganga Singh University, Bikaner	Email
Param Rekhi	Navi Mumbai, Maharashtra	St. Xavier's College, Mumbai	Email
Siddharth Rajan Kamble	Mumbai, Maharashtra	Savitribai Phule Pune University	Email
Krishna B	Kollam, Kerala	NIT Calicut	Email
Chandel kumar Meena	karoli, Raj.	Maharaja University, Rajasthan University	Email

RESEARCH GROUPS AND FACULTY MEMBERS

Condensed Matter Theory Group-

Prof. Aftab Alam
Associate Professor

Email: aftab@phy.iitb.ac.in



To develop advanced theory, algorithms and numerically efficient codes to explain various properties structure and behaviour of materials.

Soumya Bera
Assistant Professor

Office : 210

Phone: +91-22-2576-9378

soumya.bera@phy.iitb.ac.in



Many body localization, nonequilibrium dynamics, entanglement properties, floquet system

Gopal Dixit
Assistant Professor

Office : 203

Phone: +91 22 25767558

gdixit@phy.iitb.ac.in



Understanding ultrafast physical and chemical processes in nature on attosecond and femtosecond time scales

Hridis Kumar Pal
Assistant Professor

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Physics Phone: +91-22-25767561

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Quantum materials where novel effects arise from either topological properties of the wavefunction or interparticle interactions.

Sumiran Pujari
Assistant Professor

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Condensed matter theory, quantum magnetism, computational approaches

Alok Shukla
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The theory of the electronic structure of atoms, molecules, clusters, clouds and solids.







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<p>Anshuman Kumar Assistant Professor Office : 304 D Phone: 022-2576-7584 anshuman.kumar@iitb.ac.in</p>		<p>Experimental and theoretical aspects of Nanophotonics and 2D materials.</p>
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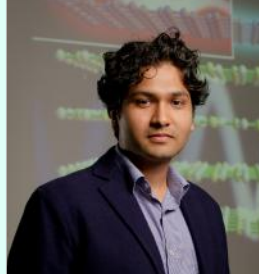
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Fourier optics and nanophotonics

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Experimental and theoretical aspects of Nanophotonics and 2D materials.

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Experimental exploration of energy transfer and dynamical processes in metal and semiconductor nanostructures.

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