

INFORMATION BOOKLET

Ph.D. ADMISSION

2022-23 (PHASE II)

APPLICATION COMMENCES FROM 26TH SEPTEMBER, 2022



**INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES)**

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<https://www.iitism.ac.in>

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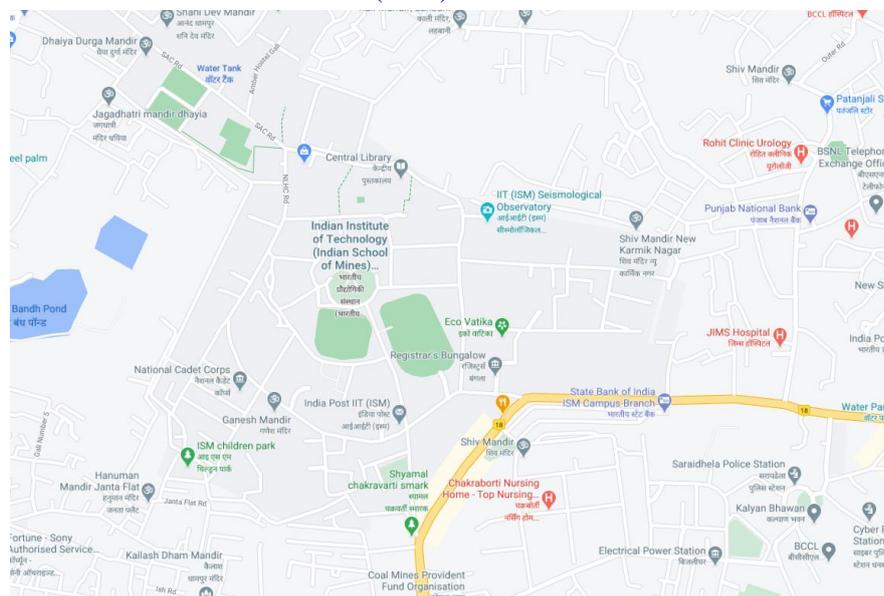
1. ABOUT IIT (ISM) DHANBAD

Indian Institute of Technology (Indian School of Mines) [IIT (ISM)], Dhanbad, previously known as ISM Dhanbad, is one of the prestigious institutes of the country, built on the pattern of the Royal School of Mines, England, United Kingdom (U.K.) in the year 1926. Today, it enjoys the status of an **Institute of National Importance**, fully funded by the Ministry of Education, Govt. of India (GOI) and was declared as an IIT on 6th September 2016. IIT (ISM), while administering its programs through various Departments and Centres of excellence, offers its services to several industries, especially in mining, mineral, petroleum, and metallurgy sectors. IIT(ISM) focuses its education on various engineering, science and management disciplines. The institute offers B.Tech., M.Sc., M.Sc. (Tech.), M.Tech., MBA, M.Tech. Dual Degrees, Integrated M.Tech. programs, besides awarding Ph.D. and D.Sc. in all disciplines.

The Institute aims at excellence in teaching and research that benefits both academia and industry through 18 departments in various areas of **Engineering**: Civil, Computer Science & Engineering, Chemical, Electrical, Electronics, Environmental Science & Engineering, Fuel, Mineral & Metallurgical Engineering, Mechanical, Mineral, Metallurgical, Mining, and Petroleum; **Science**: Physics, Chemistry & Chemical Biology, Mathematics & Computing, Applied Geology, Applied Geophysics, besides **Management Studies and Humanities & Social Sciences**. It has been focusing its academic and research activities on various aspects of industries ever since its inception.

IIT(ISM) maintains its all-India character, drawing faculty and students from all across the country. It occupies a unique position around the globe and has contributed to the development of the mining, mineral, and petroleum sector substantially. The institute possesses state-of-the-art facilities for advanced studies and research in several areas of Engineering, Sciences, Management, and Humanities & Social Sciences. The institute campus is spread over an area of 220 acres.

IIT(ISM) Dhanbad



IIT (ISM) is located in the city of **Dhanbad**, which is also known for its Coal Mines. Hence referred to as the Coal Capital of India. One can reach Dhanbad by rail and road. It is 259 km from Kolkata, 167 km from Ranchi, 67 km from Bokaro Steel City, and about 180 km from Jamshedpur. Trains are available from all parts of the country to reach Dhanbad via Kolkata, Delhi, and Bombay. Ranchi, Kolkata and Durgapur are the nearest airports. Deluxe and Express buses ply from Kolkata, Ranchi, Jamshedpur, and Bokaro to Dhanbad. IIT (ISM) campus is just 2.5 km from Dhanbad railway station where taxis and rickshaws ply round the clock. People arriving by train should exit from the main gate located near the platform No.1 to avail the taxis/rickshaws for local conveyance to the institute.

2. ABOUT Ph.D. ADMISSION 2022-23 (Phase II)

IIT(ISM) Dhanbad provides Institute Assistantship (IA) to the deserving and eligible candidates qualified through the institute selection procedure thus, providing ample opportunities for carrying out research leading to the Ph.D. degree.

IA is open to the candidates who possess the minimum eligibility criteria given in [section 3.4](#). The respective department will scrutinize the eligibility of the candidate at every stage as per the specific criteria of the respective discipline of the Ph.D. program ([Table 6](#)). The applicants should submit the correct information during online registration and application. Applications that have incorrect/insufficient information will be rejected at any stage.

The total number of seats for the 2022-23 admission depends on the availability of funds and vacancy for the academic year 2022-23. The discipline-wise distribution of seats will be as per the requirement of respective departments. Reservation policy as directed by the Government of India will be followed, and the number of seats for each category will be fixed at the institute level and not for each discipline.

2.1 Important Dates

Table 1 provides the tentative dates for the Ph.D. ADMISSION 2022-23 (Phase II). Any change in date(s) will be notified through IIT(ISM)'s website. Candidates are requested to visit IIT(ISM) website frequently for any information regarding Ph.D. admission, including change of date, if any.

Table 1: Important dates[#]

Details	Date(s)
Commencement of online application	September 26, 2022
Last date for applying through online portal	October 17, 2022
Intimation to shortlisted candidates for interview*	November 01, 2022
Interview for shortlisted candidates**	November 11-13, 2022
Declaration of the merit list	November 23, 2022
Fee payment & Seat Acceptance of Merit list candidates	November 23-28, 2022
Declaration of extended merit list	December 05, 2022
Fee payment & Seat Acceptance of Extended Merit list candidates	December 05-12, 2022
Physical Admission (in Campus) & joining of admitted students	December 16, 2022

[#]Any of the dates may be changed due to unavoidable circumstances. *Appropriate academic criteria/methodology will be adopted by the respective departments for shortlisting of applications received against the Ph.D. admission.

**In normal situation, the interview will be held physically in the campus at respective departments. However, it may be online if situation demands.

2.2 Disciplines

This scheme is currently available to only those disciplines given in [Table 2](#), with an emphasis on interdisciplinary research. IIT(ISM) encourages registration for Ph.D. in the interdisciplinary areas, which may be offered to the successful candidates.

Table 2: List of disciplines

Sl. No.	Department	Discipline Name	Code
1	Applied Geology	Applied Geology	AGL
2	Applied Geophysics	Applied Geophysics	AGP
3	Chemical Engineering	Chemical Engineering	CHE
4	Chemistry & Chemical Biology	Chemistry	CHY
5	Computer Science & Engg.	Computer Science & Engg.	CSE
6	Civil Engineering	Civil Engineering	CVL
7	Electronics Engg.	Electronics Engg.	ECE
8	Electrical Engg.	Electrical Engg.	ELE
9	Humanities & Social Sciences	English Language/Literature	ENG
10	Humanities & Social Sciences	Philosophy	PLY
11	Humanities & Social Sciences	Psychology	PSY
12	Humanities & Social Sciences	Sociology	SOC
13	Environmental Science & Engg.	Environmental Science & Engg.	ESE
14	Fuel, Mineral & Metallurgical Engg.	Fuel, Mineral & Metallurgical Engg.	FMM
15	Management Studies	Industrial Engg. & Management	IEM
16	Management Studies	Management	MAN
17	Mathematics & Computing	Mathematics	MAT
18	Mathematics & Computing	Statistics	STA
19	Mechanical Engineering	Mechanical Engineering	MEC
20	Mining Engineering	Mining Engineering	MNE
21	Petroleum Engineering	Petroleum Engineering	PET
22	Physics	Physics	PHY

2.3 Institute Assistantship (IA)

The Institute may provide full-time Ph. D. students who have qualified GATE or any other eligible national level examination, financial assistance in the form of teaching or research assistantships (referred to as IA). IA will also be provided for IIT graduates having CGPA greater than or equal to 8.0 in the qualifying examination. The Ph.D. students will be awarded the assistantships for a period of **five years** based on the performance every year. The assistantship will be paid at the approved rates as specified by the MHRD, GOI from time to time. Full-time Ph.D. students, financially supported by research projects, may avail IA after completion of the project, provided that she/he qualifies GATE or any other eligible national level examination and has been admitted through the Institute selection process ([Section 3 of Ph.D. Manual](#)). The maximum duration of assistantship is five years (inclusive of Project and Institute funding). Extension of assistantship shall not be given in any case, beyond five years.

IA will not be provided for:

- Full-time Ph.D. candidates having external fellowship from Govt. sources, namely, CSIR, UGC, DST, etc.

- b) Part-time Ph.D. candidates
- c) Sponsored/External Ph.D. candidates

A student should devote eight hours per week towards teaching/laboratory assistantship assigned to her/him. The renewal of assistantship is contingent on the recommendation of the Doctoral Scrutiny Committee (DSC) and is based on the satisfactory performance of the candidate in the academic program and the discharge of assistantship duties.

The selected candidates will be provided IA, as delineated in [Table 3](#).

Table 3: Institute Assistance*

Sl. No.	Qualifying Degree	IA per month (INR)	
		First 2 years	3 rd , 4 th and 5 th year
1	M.Tech. / M.Phil. / MBA / B.Tech. / M.Sc. Tech. / M.Sc. or equivalent	31,000.00	35,000.00

***Subject to satisfactory progress.**

2.3.1 Contingency grant

A cumulative contingency grant of INR 30,000.00 per annum is allowed with prior approval from the Guide and Head of the Department. The contingency is cumulative in nature. The work performance of the research scholars will be assessed as per the Institute rules. The IA may be withdrawn/withheld/discontinued at any time if the performance is unsatisfactory.

2.4 External Fellowship from Government Sources

Candidates having external fellowship from government sources, namely, CSIR, UGC, DST, etc. are **ELIGIBLE** for admission to the Ph.D. programs in the disciplines of various department. The selection procedure will be same for these candidates as mentioned in [Section 3.7](#). Fellowship to such candidates will be disbursed only after completing the necessary institutional procedures and the formalities mandated by the respective funding agencies. The fellowship amount and contingency grant will get credited to the institute accounts in time for subsequent disbursement of fellowship to the scholars. The research fellowship and contingency grant will be same for the named fellowship and will be co-terminus with the tenure of the fellowship as defined by the respective funding agencies. The registration for the Ph.D. program after the tenure of the external fellowship may be continued as per the existing rules.

These students should also devote eight hours per week towards teaching/laboratory assistantship assigned to her/him. The renewal of assistantship is contingent on the recommendation of the Doctoral Scrutiny Committee (DSC) and will be based on the satisfactory performance of the candidate in the academic program and the discharge of assistantship duties.

2.5 Rules and Regulations

The details are provided on the academic webpage of the IIT (ISM) website (<https://admission.iitism.ac.in/index.php/admission/phd>). Selected candidates are required to adhere to the prescribed rules and regulations issued through various orders by IIT(ISM) from time to time. Besides, all Ph.D. students need to complete the Ph.D. course work, including two mandatory subjects,

namely, Research Methodology & Statistics and Research & Technical Communication, as per the Ph.D. rules. Research scholars may avail admissible leave as per the [Section 7 of Ph.D. manual](#).

2.6 Program Fee

The details of fees required at the time of **admission** for Ph.D. programs are given in [Table 4](#). The fee should be paid through online payment gateway provided during the registration process. The link for payment will be made available to the selected candidates before the admission. **Payment of fees will be accepted only in online mode (Netbanking/debit card, etc.).**

Table 4: Fee structure*

Sl. No.	Particulars	Fee (INR)
1	Fee payable at the time of admission (UR/OBC-NCL/EWS) (Including hostel mess fee Winter Semester)	61,450/-
2	Fee payable at the time of admission (SC/ST/PwD/Transgender) (Including hostel mess fee Winter Semester)	55,450/-
3	Fee payable at the time of admission (Part-time)	36,350/-

***May be subject to change**

Also, payment of an additional amount towards accident insurance etc., as per actual, at the time of admission is required. The fee structure is subject to change from time to time. The exact fee structure will be notified at the time of admission.

2.7 Opportunities for IIT (ISM) Dhanbad Doctoral Students

2.7.1 Sandwich PhD program

IIT (ISM) Dhanbad offers its doctoral students the possibility for visiting and working in some of the topmost research laboratories of the world through the Sandwich Ph.D. program. The program serves to provide the Ph.D. students of the institute with an opportunity to improve research capabilities, and to establish and/or increase work opportunities in an international context. The facility is available for up to 20 fellowships per year. The selection of the Ph.D. candidates is dependent on the fulfillment of certain criteria. The institute offers funding of up to Rs. 4.5 lakhs for each individual including fellowship, air travel, visa processing fees, medical insurance, accommodation charges and daily expenses, depending upon the country of the partner Institute/University. For more details, applicants are encouraged to visit IIT (ISM) webpage for Research and Development or by using the following link URL: https://www.iitism.ac.in/deans/research/Sandwich_PhD.php

2.7.2 Financial support for international travel

IIT (ISM) Dhanbad provides financial support to its doctoral candidates for participation in international seminars/conferences. The opportunity is available to Full-Time doctoral students for presenting oral papers in the seminars/conferences. The criteria for shortlisting eligible candidates as well as the selection criteria are available on the IIT (ISM) Dhanbad, Research & Development webpage. Applicants are encouraged to visit the IIT (ISM) Dhanbad Research & Development webpage or use the following URL for more details: <https://www.iitism.ac.in/deans/research/phdGrant.php>

3. ADMISSION

3.1 General Information

Interested candidates may submit their application **online ONLY**, between **26.09.2022 to 17.10.2022**.

The following information is also available at the institution website at <https://admission.iitism.ac.in/index.php/admission/phd>

- Advertisement for Ph.D. ADMISSION 2022-23 (Phase II)
- Information brochure: with details of the application and important dates
- Link for online registration and application
- Any other notifications *viz.* change in important dates, details of the interview, admission, results, etc.

The last date for submission of online application is **17.10.2022**. Candidates are advised to retain a soft copy of the application form after successful submission for future references. The hard copy of the application form or any other document is **NOT** required to be submitted at the time of application. However, the candidates are advised to retain a hard copy of the application form for their own reference. It is the responsibility of the candidate to follow the instructions given in the Ph.D. admission brochure and on the website carefully before submitting an online application. **Any erroneous/wrong information provided during the online application, intentionally or unintentionally, will result in cancellation of the applicant's candidature.** No further information/clarification will be intimated to the candidates in such cases. Extension of the deadline will **NOT** be allowed in any case.

3.2 Application Fee

The application fees for Ph.D. selection are provided in [Table 5](#). The application fee is to be paid by the online payment option provided during the application. The application fee will not be refunded under any circumstances. No communication will be entertained in this regard.

Table 5: Application fee

Sl. No.	Category	Fee (INR) / Program Applied
1	UR/OBC-NCL/EWS	1000
2	SC/ST/PwD/Female/Transgender	500

3.3 Admission Procedure

All candidates seeking admission to the Ph.D. program (full-time, external, sponsored, or part-time Ph.D.) to the institute must apply online through the admission portal of IIT (ISM) Dhanbad at <https://admission.iitism.ac.in/index.php/admission/phd>

3.3.1 GATE/NET/DST-Inspire/CAT/GMAT/PMRF candidates

A candidate, who has qualified GATE/NET/DST-Inspire/Prime Ministers Research Fellowship (PMRF)/Appropriate National Level Examination, is **ELIGIBLE** for Ph.D. admission **ONLY** in Engineering, Science, Management Studies and Humanities & Social Sciences. A candidate who has qualified CAT/GMAT is eligible for Ph.D. in Management.

3.3.2 IIT graduates (CGPA of 8.0 or above)

IIT graduates (Masters and/or Bachelor's degree holders) having a CGPA/OGPA of 8.0 or above are also eligible for Ph.D. admission at IIT(ISM) Dhanbad. For Masters and/or Bachelor's degree holders from IITs having a CGPA of 8.0 or above, the requirement of GATE/NET is waived off.

3.3.3 Project candidates

This admission procedure also applies to candidates holding positions in externally/internally funded projects being executed in various departments at the Institute for availing IA beyond the project tenure. In such cases, the candidate must give the details in the online application portal, such as, the current position, admission number availed, project title, name of the project investigator (PI), department, date of joining, date of completion of the project.

3.3.4 Steps of admission process

The admission procedure consists of (i) shortlisting and (ii) interview. Appropriate shortlisting criteria will be adopted by the department for the shortlisting of applications received against the Ph.D. ADMISSION 2022-23 (Phase II). This includes fixing appropriate cut-off (a) GATE/CAT/GMAT score and/or (b) NET (LS) marks/rank and/or CGPA/OGPA/percentage in the qualifying degree and will be decided by the respective department.

The final selection of the candidates for admission to the Ph.D. program will be based on their performance in the interview conducted by the respective departments. The interview of the shortlisted candidates is scheduled to be conducted between **11.11.2022 to 13.11.2022**. However, IIT (ISM) may conduct the interviews of the shortlisted candidates on any other date(s) due to unforeseen circumstances.

Candidates must ensure their eligibility to the Ph.D. program in various disciplines of the respective department from the [Table 6](#) before filling the online application form.

3.4 Eligibility Criteria for Admission

For admission to Ph.D. programs of different disciplines, an applicant possessing qualifications mentioned against the subjects mentioned in [Table 6](#) are eligible to apply:

It is the responsibility of the candidate to ensure that he/she satisfies all eligibility criteria for a particular program, as mentioned in this information brochure, and submit complete and correct information in the Institute admission portal accordingly.

3.4.1 Essential criteria for Ph.D. in Engineering

- An applicant must have a Master's degree in Engineering in the relevant subject with first class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale),

OR

- An applicant must have a Bachelor's degree in Engineering with a minimum of 70% marks/CGPA of 7.0 (on a 10 point scale),
- OR**
- An applicant must have a Master's degree in Science or an allied area with first-class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale).

3.4.2 Essential criteria for Ph.D. in Science

- An applicant must have a Master's degree in the relevant subject with first class/division or a minimum of 60 % marks/CGPA of 6.0 (on a 10-point scale),
- OR**
- An applicant must have a Bachelor's degree in Engineering with a minimum of 70% marks/CGPA of 7.0 (on a 10 point scale),
- OR**
- An applicant must have a Master's degree in Science or an allied area with first-class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale).

3.4.3 Essential criteria for Ph.D. in Humanities and Social Sciences

- An applicant must have a Master's degree in the relevant subject, Arts, Commerce, Humanities and Social Sciences with first class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale),
- OR**
- An applicant must have a Bachelor's degree in Engineering with a minimum of 70% marks/CGPA of 7.0 (on a 10 point scale).
- OR**
- An applicant must have a Master's degree in Engineering / Technology/Science/ Commerce / Management with first class/division or a minimum of 60 % marks/CGPA of 6.0 (on a 10 point scale).

3.4.4 Essential criteria for Ph.D. in Management

- An applicant must have a Master's degree or equivalent in Management or allied areas or Engineering / Technology with first class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale),
- OR**
- An applicant with a Bachelor's degree in Engineering with a minimum of 70% marks/7.0 CGPA,
- OR**
- An applicant must have a Master's degree in Science/Arts/Commerce with first-class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale),
- OR**
- An applicant who has qualified for CA/ICAI/ICMA/CS, with first-class/division or a minimum of 60% marks/CGPA of 6.0 (on a 10 point scale) in Bachelor's degree.

Note: Bachelor's degree in Engineering means regular fulltime Bachelor's degree. A candidate with AMIE or similar degree is not eligible for admission.

3.4.5 Language proficiency

The medium of instruction, the publication of research paper, and reporting will be in English. Therefore, scholars are required to possess adequate knowledge of English.

3.4.6 Special cases

- Colour blind candidates are not eligible for admission in **Applied Geology** and **Mining Engineering** disciplines.
- Physically challenged candidates with any form of the physical challenge will **NOT** be considered for **Mining Engineering** disciplines.

3.4.7 Qualifying degree

- ❖ The disciplines for Ph.D. admission are provided in [Table 2](#).
- ❖ The candidates' qualifying degree and subject should match with the discipline, degree, and specialization detailed in [Table 6](#).
- ❖ For all disciplines, applicants with B. Tech. degree from IITs with minimum CGPA/OGPA 8.0, are eligible to apply. The concerned department will shortlist such undergraduate candidates for interview by adopting appropriate shortlisting criteria.
- ❖ Candidates appearing for their final semester exams are **ELIGIBLE** to apply under Result Awaiting (RA) category.

Table 6: Eligibility and Qualifying degree for various departments[#]

Sl	Department	Discipline	Code
1	Applied Geology	Applied Geology	AGL
	M.Sc./M.Sc. Tech in Geology / Applied Geology or M.Sc./M.Sc. Tech. in Geology/Applied Geology with specialization in Marine Geology / Oceanography / Hydrogeology / Geochemistry/ Applied Geochemistry / Geoinformatics / Natural Hazards & Disaster Risk Management / Remote Sensing and GIS / Geophysics / Petroleum Geosciences. OR Integrated M.Sc./M.Sc.Tech/M.Tech. in Geology/Applied Geology or M. Tech. in Geological Technology. OR M.Tech in Mineral Exploration/Engineering Geology/Petroleum Exploration/Geo-exploration/ Exploration Geosciences / Remote Sensing / Remote Sensing and GIS applications / Geoinformatics/ Petroleum Geosciences/ Marine Geosciences having M.Sc./M.Sc. Tech in Geology/Applied Geology or Integrated M.Sc./M.Sc. Tech./ M.Tech. in Geology/Applied Geology or M. Tech. in Geological Technology.		
2	Applied Geophysics	Applied Geophysics	AGP
	M.Sc/M.Sc. Tech./Integrated M. Tech. /M. Tech. in Applied Geophysics/ Exploration Geophysics/ Geophysics or M.Sc.Tech. in Marine Geophysics or M.Tech in Earthquake Science and Engineering or M. Tech. in Geo-exploration or M. Tech. in other relevant fields.		
3	Chemical Engg	Chemical Engg	CHE
	M.Tech or equivalent in Chemical Engineering or its related discipline WITH B Tech/B.E in Chemical Engineering or Chemical Technology or Polymer Science and Engineering or Biochemical Engineering or Petrochemical Engineering.		
4	Chemistry & Chemical Biology	Chemistry	CHY
	M.Tech. / M.Phil. / M.Sc. or equivalent in Chemistry / Applied Chemistry / Industrial Chemistry.		
5	Computer Science & Engg.	Computer Science & Engg.	CSE
	M.Tech or equivalent in Computer Science & Engg. / Information Technology / Computer Application / Software Engineering / Electronics Engg. / Electronics and Communication Engg. / Electrical Engg. WITH B. Tech. or		

	equivalent in Computer Science & Engg. / Information Technology / Electronics Engg. / Electronics and Communication Engg. / Electrical Engg.	
6	Civil Engg.	Civil Engg.
	CVL	
	M.Tech. / M.E. in Civil Engg. With B.Tech. / B.E. in Civil Engg. / Construction Management, Aerospace Engg., Naval Architecture, Agricultural Engg. and Technology having specialization in their M. Tech./M. E. as Structural Engg./ Geotechnical Engg./ Water Resources Engg./ Environmental Engg./Transportation Engg./ Remote Sensing & GIS/ Construction Management/ Aerospace Engg./ Naval Architecture/ Agricultural Engg. and Technology.	
7	Electronics Engg.	Electronics Engg.
	ECE	
	M. Tech. / M.E. / MS in Electronics/Electronics & Communication/ Electronics & Tele-communication/ Electronics & Instrumentation/ Instrumentation/ Instrumentation & control/ Electronics & Electrical Engineering/ Computer Science Engg/ Information Technology or related field WITH B. Tech./B.E. or equivalent degree in Electronics / Electronics & Communication /Electronics & Tele-communication / Electronics & Instrumentation/ Instrumentation/ Instrumentation & control/ Electronics & Electrical Engineering/ Computer Science Engg/ Information Technology	
8	Electrical Engg.	Electrical Engg.
	ELE	
	M.Tech. or equivalent in Electrical Engg. / Control System Engg. / Power System Engg. / Electrical Machines / Power Electronics and Drives / High Voltage Engg. / Instrumentation Engg. / Power Apparatus & Devices / Electronics WITH B.Tech or equivalent in Electrical/Electrical & Electronics Engg.	
9	Humanities & Social Sciences	English Language/Literature
	ENG	
	Masters or equivalent in English/ELT/Linguistics.	
	Humanities & Social Sciences	Philosophy
	PLY	
	Masters or equivalent in Philosophy or related discipline.	
	Humanities & Social Sciences	Psychology
	PSY	
	Masters or equivalent in Psychology or related discipline.	
	Humanities & Social Sciences	Sociology
	SOC	
	Masters or equivalent in Sociology or related discipline.	
10	Environmental Science & Engg.	Environmental Science
	ESE	
	M.Tech. / M.E. or equivalent in Environmental Science & Engineering / Biotechnology / Civil / Chemical / Water Resource Engg / Mining / Atmospheric Science. OR M.Phil. / M.Sc. / M.Sc. Tech. or equivalent in Atmospheric science/ Botany / Microbiology / Biotechnology / Chemistry / Physics / Environmental Science / Environmental Science & Management / Geology / Hydrology / Soil Science / Remote sensing and GIS / Forestry.	
11	Fuel, Mineral & Metallurgical Engg.	Fuel, Mineral & Metallurgical Engg.
	FMM	
	B.Tech / M.Tech. or equivalent in Mineral / Fuel / Chemical / Energy / Metallurgical / Mining / Mechanical / Production / Manufacturing or its related discipline.	
12	Management Studies	Industrial Engg. & Management
	IEM	
	Postgraduate Degree in Industrial Engg. and Management / Industrial Engg. / Production Engineering / Mechanical Engg. / Electrical Engg. / Civil Engg. or equivalent.	
13	Management Studies	Management
	MAN	
	MBA degree / Postgraduate degree or diploma recognized as equivalent to postgraduate in Management by AICTE / UGC / AIU / Postgraduate degree in Economics / Commerce / Psychology / Professional qualifications like CA / CS / ICWA / Postgraduate degree in Industrial Engg. and Management / Industrial Management / Industrial Engg. / Production Engg.	
14	Mathematics & Computing	Mathematics
	MAT	
	M.Phil/ M. Tech. / M.Sc. or equivalent in Mathematics / Applied Mathematics / Mathematics & Computing / M.Tech. in Computer Science.	
	Mathematics & Computing	Statistics
	STA	
	M.Phil/M.Sc. or equivalent in Statistics/Applied Statistics/Bio-Statistics.	
15	Mechanical Engg.	Mechanical Engineering
	MEC	
	M. Tech. or equivalent degree with specialization in Mechanical /Production / Manufacturing / Industrial Production / CAD/CAM /Machine Design / Mechatronics / Thermal / Heat Power / Energy /Power Plant Engg. / Automobile / Maintenance Engg./Tribology/Welding Technology/Mechanical Science/Hydro and Renewable Energy/Renewable Energy/Energy Environment and Management/ Applied Mechanics/Engineering	

	Mechanics/Stress and Vibration Analysis/Aerospace Engineering/Robotics/Nano Technology/Fluid power and Control/Mechanical Engg with Thermal/Fluid Mechanics as major or in Aerospace Engineering with aerodynamics as Major or in Civil Engineering with Fluid Mechanics/Hydraulics as Major/MME or any combinations of these specializations. WITH B. E. / B.Tech./B.Sc. in Engineering or equivalent degree in Mechanical / Production / Manufacturing / Aerospace / Energy Engineering /Power Plant Engineering/Automobile Engineering/Mechanical Science/ Aeronautical Engineering/ Industrial Engineering/ Automation Engineering/ Mechatronics Engineering/Robotics/Marine Engineering/ Mining Machinery Engineering/Engineering and Computational Mechanics/ or Any combination of the disciplines given as mentioned.	
16	Mining Engg.	Mining Engineering
	M.Tech. or equivalent in Mining Engg. / Opencast Mining / Mine Planning & Design / Rock Excavation Engg. / Geomatics / Tunnelling and Underground Space Technology / Rock Mechanics/Geotechnical Engg/ Civil Engg. / Engineering Geology; with B.Tech or equivalent in Mining Engg. / Civil Engg. / Opencast Mining/Mining Machinery/Environmental Engg; M.Sc. Tech. (Applied Geology); M.Sc. (Geospatial Science), Minerals & Metallurgical Engg, Mineral Engg, Electronics Engg, Electronics & Communication Engg, Computer Science Engg.	MNE
17	Petroleum Engg.	Petroleum Engineering
	M. Tech. in Petroleum / Chemical / Petroleum & Petrochemical / Mechanical / Civil / Computer Science & Engineering OR M.Sc. in Chemistry, Mathematics, Geology and Geophysics and B. Tech. in Petroleum Engineering.	PET
18	Physics	Physics
	M.Sc./Integrated M.Sc./M.Phil or equivalent in Physics/Applied Physics or B.Tech./M.Tech./Integrated M.Tech. or equivalent in Engineering Physics/Material Science/Nanoscience and Technology/Optoelectronics or equivalent.	PHY

Equivalence degrees for B.Tech will be BE/BSc Engg. (4 years) and for M.Tech will be ME/M.Sc. Engg.

3.5 Reservation Policy

Table 7: Categories

Sl. No.	Code	Category
1.	UR	Unreserved
2.	PwD	Persons with disabilities/Divyang
3.	OBC-NCL	Other Backward Class - Non-Creamy Layer
4.	SC	Scheduled Caste
5.	ST	Scheduled Tribe
6.	EWS	Economically Weaker Section (General)

- Reservation for EWS/PwD/OBC-NCL/SC/ST candidates will be as per GOI directive/guidelines.
- There shall be a horizontal reservation of 5% of the sanctioned strength, across all categories, for applicants belonging to persons with disabilities (PwD).
- For Other Backward Class - Non-Creamy Layer (OBC-NCL) candidates:
 - 1) Certificate in the Central government format
 - 2) Certificate issued for admission/position to state governments will not be considered.
 - 3) The certificate should be issued **on or after 01st April, 2021**.
 - 4) The original certificate should be produced at the time of the physical interview and physical admission.
 - 5) Candidates **NOT** having valid OBC-Non-Creamy Layer certificate will not be considered for Interview or admission for the Ph.D. program.
- EWS candidates should provide the valid EWS certificate (central government of India format) in support of their claim.

- Candidates selected for interview should submit appropriate self-attested PwD/OBC-NCL/SC/ST/EWS category documents (central government format) in support of their claim along with a hard copy of their application or registration form at the time of the interview. Application forms without self-attested supporting documents will not be considered.

3.6 Medical Fitness

A candidate selected for the Ph.D. program will be offered admission, only if she/he is found fit as per the norms and standards of medical fitness set by IIT(ISM). An overview of the standards of medical fitness set by IIT(ISM) is presented below.

3.6.1 General requirements

The selected candidates shall submit the medical certificate in the prescribed format at the time of admission which will be intimated to the candidates. However, candidates may be further examined by a medical board set by IIT(ISM) before the admission, whose decision for medical fitness will be final.

A candidate should have good general physique with:

- Chest measurement: Not less than 70 cms with a satisfactory limit of expansion and contraction.
- Vision: Should be normal. In the case of defective vision, it should be corrected to 6/9 in both eyes or 6/6 in the better eye.
- Hearing: Should be normal. A defective hearing should be corrected.
- Heart & Lungs: Should not have any abnormality.
- No history of mental diseases or epileptic fits.

Besides the above, some special restrictions apply for the following disciplines:

- Colour blind candidates are not eligible for admission to (i) Applied Geology and (ii) Mining Engineering ([See Section 3.4.7](#)).
- Physically challenged candidates with any form of physical disability will not be considered for admission to Mining Engineering discipline ([See Section 3.4.7](#)).

3.7 Application Procedure

3.7.1 Registration and online application

Interested candidates should register their name using valid email id and phone number and submit their application online from **26.09.2022 to 17.10.2022**. Details on the application along with information brochure containing eligibility criteria can be downloaded from the IIT(ISM) website <https://admission.iitism.ac.in/index.php/admission/phd>. Application fee (Rs. **1000/-** for UR/OBC-NCL/EWS and Rs.**500/-** for SC/ST/PwD/Female/Transgender candidates) is to be paid online, by the available online mode of payment. The candidates will be guided through the application process during registration and online application. It is advised to read the on-screen instructions very carefully while filling online application. The candidates are advised to take utmost care while filling and **NOT** to give any false information or conceal any information. If the claim by the candidate is found **WRONG** at any stage of the Ph.D. selection process, their candidature stands cancelled, and no communication will be made in this regard. Candidates will be responsible for any mistake that occurred during the filling and consequent submission of online application. For any other queries, please feel free to contact the Ph.D. Admission office through aradm@iitism.ac.in

3.7.2 Submission of hard copy of application form

Hardcopy of the completed application is **NOT** required to be submitted. However, candidates must download the softcopy of the application after successful submission in the online application portal and should submit the hardcopy of the application form along with self-attested testimonials at the time of the physical appearance for interview/admission, whichever is earlier.

3.7.3 Selection process

The selection depends on the number of vacancies and performance of the candidate. The department may adopt an appropriate criteria for shortlisting the candidates applied for the Ph.D. program in the respective discipline. The interview will be conducted for all the shortlisted candidates for the selection to the Ph.D. program. The list of shortlisted candidates for the interview will be displayed in IIT(ISM) website as per [Table 2.1](#). The medium of interview will be English. The final selection of the candidates for admission to the Ph.D. program will be based on their performance in the interview conducted by the respective departments.

The selection committee of the respective department approved by the competent authority will interview the shortlisted candidates, and marks will be awarded based on the performance of the candidate in the **INTERVIEW ONLY. The merit list will be prepared from the above list by applying the reservation policy (as mentioned in [Section 3.5](#)).**

3.7.4 Interview procedure

All candidates shortlisted for the interview have to appear for personal interview on the scheduled date at IIT(ISM), Dhanbad. The list of shortlisted candidates for the interview will be displayed in IIT(ISM) website. No separate communication will be sent to these candidates. The shortlisted candidates are required to bring all the necessary documents, especially the following while coming for the interview:

- a. A print out of your **REGISTRATION SLIP** duly self-attested (downloaded online application form).
- b. One self-attested copy of all the supporting documents.
- c. All necessary documents **IN ORIGINAL** in support of their claim as given in the application form, especially the ones mentioned below:
 - i. Proof of date of birth.
 - ii. Educational qualifications.
 - iii. Eligibility of qualifying examination.
 - iv. Proof of **FIRST CLASS**/the minimum prescribed percentage or grade point average as stipulated in **Section 3.4**.
 - v. Proof for category [EWS/OBC-NCL/SC/ST/PwD].
 - vi. Valid OBC-NCL/EWS certificate by the competent authority in the format as per the Central Educational Institutions (CEIs) under GOI given in Annexure I & II of Information Brochure for Ph.D. ADMISSION 2022-23 (Phase II), issued on or after **01st April, 2021**.
 - vii. For PwD candidates, proof of the same along with certificate of their respective category.
 - viii. GATE score card.
 - ix. NET certificate for NET qualified candidates.

Only those shortlisted candidates will be interviewed who are found to be eligible after the verification of their **original documents**. Those who do not possess required **original documents** during scrutiny will not be interviewed, and their candidature will stand cancelled. No further communication will be made to the candidate. No TA/DA will be provided for the candidates appearing for the interview. Candidates have to make their own arrangements to attend the interview in the scheduled date and time.

Additional instructions, if any, will be published in the institute website (<https://admission.iitism.ac.in/index.php/admission/phd>) and candidates are requested to visit the link, as and when required.

3.7.5 Final admission

All admissions to the Ph.D. program will be made from the consolidated merit list on the approval of the Chairman, Senate on the recommendations of the Departmental Post Graduate Committee (DPGC) and the Admission Committee. On approval by the Chairman, Senate, the Academic Section will issue the admission letters to the candidates who will be required to accept the offer of admission by depositing the prescribed fee on or before the specified date.

In case, a candidate does not accept the offer by paying the prescribed fee within the specified date, the offer of admission will stand withdrawn. The offer of admission may also stand withdrawn if the candidate who has accepted the offer, fails to register within the date for late registration.

In the event of any information being found false or incorrect or incomplete or non-eligibility being detected at any time before or after admission, her/his candidature is liable for rejection without further communication.

All such provisionally selected candidates will be invited to take physical admission on a scheduled date at the time and venue mentioned in the offer letter. The original documents will be scrutinized again before physical admission. Selected candidates are required to bring all the **ORIGINAL**

documents, including the final grade sheet, while coming for admission on the said date. No extension will be given under any circumstances. All research scholars will be governed by the IIT (ISM)'s Rules and Regulations and the IIT (ISM)'s Ph. D. Manual prevailing at that time.

3.7.6 Withdrawal and refund of admission fee

During the admission/provisional admission process, a candidate may withdraw his/her admission. Withdrawal may be requested to AR (Admissions) at aradm@iitism.ac.in by e-mail from the registered email Id of the candidate.

- a) If a candidate withdraws the offer of admission within five days after the last date of admission for the round in which she/he was admitted, the entire fee collected from the candidate will be refunded after a deduction of processing fee of Rs.2000/-.
- b) If a candidate withdraws the offer of admission after five days from the last date of admission for the round in which she/he was admitted, she/he will be refunded only the caution money and advance hostel mess fee.
- c) If a candidate fails to appear for the physical registration at the Institute on the scheduled date, the admission of the candidate will be cancelled. No requests for providing alternate dates for physical registration will be entertained. In such a case the candidate will be refunded only the caution money and advance hostel mess fee.
- d) No refund of fees paid will be made if the admission of the candidate is cancelled due to wrong information/non-fulfillment of eligibility criteria if found at any stage.

4. DISCLAIMER

The website mentioned in this document has been launched to provide the candidates and public-at-large, information about the IIT(ISM) Ph. D. Admission. If you do not agree to the terms and conditions below, kindly do not access this site or any pages thereof.

4.1 Terms and Conditions

4.1.1 No warranty

The information and materials contained in the site, including text, graphics, links or other items - are provided on an "As Is" and "As Available" basis. Although Ph.D. Admission Committee which organizes and conducts the interview and admission to the Ph.D. program tries to provide information accurately, it disclaims liability for errors or omissions in this information and materials.

No warranty of any kind, implied, expressed or statutory, including but not limited to the warranty of fitness for a particular purpose and freedom from computer virus, is given in conjunction with the information and materials.

4.1.2 Limitation of liability

In no event, IIT(ISM) will be liable for any damages, including without limitation, direct or indirect, special, incidental, or consequential damages, losses, or expenses arising in connection with this site or use thereof or inability to use by any person, or in connection with any failure of performance, error, omission, interruption, defect, delay of operation or transmission, computer virus or line or system failure, even if IIT(ISM), or representative thereof, are advised of the possibility of such damages, losses or expenses.

4.1.3 Network services

The Ph.D. Admission committee cannot be held responsible for reduced access speeds due to bandwidth overloads, especially close to the last date of application submission.

5. JURISDICTION

In case any claim or dispute arises in respect of Ph.D. Admission, it is now made clear that the Courts in Dhanbad and Dhanbad alone shall have the exclusive jurisdiction to entertain and settle any such dispute or claim.

6. COMMUNICATION WITH IIT (ISM) DHANBAD

Communication regarding Ph.D. Admissions 2022-2023 should be sent to the following address with the envelope superscripted with “Ref: Ph.D. Admission – 2022-2023 (Phase II)”

Assistant Registrar (Admissions)

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES) DHANBAD

DHANBAD–826004

JHARKHAND

INDIA

Email: aradm@iitism.ac.in

Any email communication should be addressed with full identification of the candidate, i.e., name, email, mobile, program name(s), category, and other identifying codes given by IIT(ISM) (such as registration number, application number etc.). For electronic communication the candidate should use the email/mobile registered in the online application only. *Before asking a query, a candidate must go through this Information Brochure/ instructions in the online portal properly.*

7. Annexure I – Format of EWS Certificate

Proforma for ECONOMICALLY WEAKER SECTIONS (EWS) Certificate (INCOME & ASSETS CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTIONS)

Government of.....

(Name & Address of the authority issuing the certificate)

Certificate No

Date:

VALID FOR THE YEAR

1. This is to certify that Shri/Smt./Kumari..... Son/daughter/wife of.....permanent resident of....., Village/Street..... Post Office..... District..... in the State/Union Territory..... Pin Code..... whose photograph is attested below belongs to Economically Weaker Sections, since the gross annual income* of his/her family** is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year His/her family does not own or possess any of the following assets*** :
 - I. 5 acres of agricultural land and above;
 - II. Residential flat of 1000 sq. ft. and above;
 - III. Residential plot of 100 sq. yards and above in notified municipalities;
 - IV. Residential plot of 200 sq. yards and above in. areas other than the notified municipalities.
2. Shri/Smt./Kumari belongs to the caste which is not recognized as a Scheduled Caste, Scheduled Tribe and Other Backward Classes (Central List).

Recent Passport size
attested photograph of
the applicant

Signature with seal of Office.....

Name

Designation

***Note 1:** Income covered all sources i.e. salary, agriculture, business, profession, etc.

****Note 2:** The term 'Family' for this purpose include the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years

*****Note 3:** The property held by a 'Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

The authorities competent to issue Caste Certificates are indicated below:

- (i) District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st Class Stipendiary Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate)
- (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate
- (iii) Revenue Officer not below the rank of Tehsildar and
- (iv) Sub-Divisional Officer of the area where the candidate and / or his/her family resides.

The date of issue of EWS certificate should be on or after 1st April 2021.

8. Annexure II – Format of OBC-NCL Certificate

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES (NCL)* APPLYING FOR ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA

This is to certify that Shri/Smt./Kum** _____ Son/
Daughter** of Shri/Smt.** _____ of Village/ Town**
_____ District/Division** _____ in
the State/Union Territory _____ belongs to the
_____ community that is recognized as a backward class under
Government of India***, Ministry of Social Justice and Empowerment's Resolution No.
_____ dated _____ ****

Shri/Smt./Kum. _____ and/or _____ his/her family
ordinarily reside(s) in the _____ District/Division of the
_____ State/Union Territory. This is also to certify that **he/she**
does NOT belong to the persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule
to the Government of India, Department of Personnel & Training O.M. No.36012/22/93- Estt.
(SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.) dated 09/03/2004,
further modified vide OM No. 36033/3/2004-Estt. (Res.) dated 14/10/2008, again further modified
vide OM No.36036/2/2013-Estt (Res) dtd. 30/05/2014, and again further modified vide OM No.
36033/1/2013-Estt (Res) dtd. 13/09/2017.

Dated -

District Magistrate / Deputy Commissioner /
Any other Competent Authority

Seal

* Visit <http://www.ncbc.nic.in> for latest guidelines and updates on the Central List of State-wise OBCs.

** Please delete the word(s) which are not applicable.

*** As listed in the Annexure (for FORM-OBC-NCL)

**** The authority issuing the certificate needs to mention the details of Resolution of Government of India, in which the caste of the candidate is mentioned as OBC.

NOTE:

(a) The term 'Ordinarily resides' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

(b) The authorities competent to issue Caste Certificates are indicated below:

- (i) District Magistrate/ Additional Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner/ Deputy Collector/ Ist Class Stipendiary Magistrate/ Sub-Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
- (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
- (iii) Revenue Officer not below the rank of Tehsildar' and
- (iv) Sub-Divisional Officer of the area where the candidate and/or his family resides
- (v) Certificate issued by any other authority will be rejected.