# INDIAN SCHOOL OF MINES INTROOP STUDE STUDENTS

# INDIAN SCHOOL OF MINES, DHANBAD

(Autonomous Institution under MHRD, Govt. of India)

Advt. No. 411002/2015-Estt

12th October, 2015

# **Standing Invitation for Faculty Positions**

Indian School of Mines, established in 1926, offers 4 Yr B.Tech degree in Computer Science & Engg, Chemical, Civil, Electrical, Electronics, Environmental, Mechanical, Mineral, Mining, Mining Machinery and Petroleum Engineering and 5 Yr. integrated M.Tech/ M.Sc. (Tech.), 2 Yr. M.Tech, 2 Yr. MBA programs and Ph.D in the areas of Basic & Applied Sciences, Earth Sciences, Engineering, Humanities & Social Sciences and Management. Applications are invited from Indian nationals (from General, SC, ST & OBC categories) possessing excellent academic background throughout along with self-motivation to quality teaching and research for faculty positions at all levels for the following departments:

- 1. Applied Chemistry
- 2. Applied Geology
- 3. Applied Geophysics
- 4. Applied Mathematics
- 5. Applied Physics
- 6. Chemical Engineering
- 7. Civil Engineering
- 8. Computer Science & Engg.
- 9. Electrical Engineering
- 10. Electronics Engineering
- 11. Environmental Science & Engg.
- 12. Fuel & Mineral Engineering.
- 13. Humanities & Social Sciences
- 14. Management Studies
- 15. Mechanical Engineering
- 16. Mining Machinery Engineering
- 17. Mining Engineering
- 18. Petroleum Engineering.

## **Qualifications, Experience and Pay Scale:**

SI. No.	Designation, Pay Band and Academic Grade Pay	Essential Qualification and Relevant Experience	Other Essential requirements	Additional Desirable Requirements	Max. Age
1.	Professor (On Contract) PB-3: Rs. 15,600-39,100 Academic Grade Pay of	(i) Candidates with very good academic record having Ph. D degree but no experience & 1st class in preceding degree.  (Seven non-compounded advance increments for Ph.D. shall be given.	None	None	35 Years
		(i) Candidates with very good academic record having M. Tech with 1st class (only for engineering branches) and 1st class in preceding degree.  (Two non-compounded increments for M. Tech shall be given).	None	None	

SI. No.	Designation, Pay Band and Academic Grade Pay	(iii) Candidates with very good academic record having Ph. D degree and one year experience & 1st class in preceding degree. (Shall be placed with the minimum pay of Rs. 22,500/- with AGP of Rs. 7,000/- per month)  Essential Qualification and Relevant Experience	(i) Two papers accepted for publication/ published in SCI/SSCI journals # or One patent; may be based on Ph. D work  Other Essential requirements	Additional Desirable Requirements	Max. Age
2.	15,600-39,100 Academic Grade Pay of Rs. 8000/- per	(i) Candidates with very good academic record having Ph. D and three years' experience(excluding the period of Ph. D) & 1st class in preceding degree.  (Minimum pay in pay band to be fixed at Rs. 30,000/-)	i) 3 papers in SCI/SSCI journals in career # OR 2 papers in SCI/SSCI journals outside Ph. D work + One ongoing sponsored project for candidates from academia ii) One Ph.D. supervision ongoing/1 Patent/Experience in Industry or R&D Laboratory of repute/ Post Graduate projects supervision. iii) Contribution to Students Affairs or Laboratory Development iv) The above other essential requirements are relaxable for industry / R&D experience.*	None	No Upper Age Limit
		(ii)Assistant Professors on completion of 3 years of service in PB-3 with AGP of Rs. 8,000/- shall move to PB-4 Rs. 37,400-67,000 with Academic Grade Pay of Rs. 9,000/- per month.	i) 5 papers in SCI/SSCI journals outside Ph.D. work + One ongoing sponsored project # ii) One Ph.D. supervision ongoing/1Patent /Experience in Industry or R&D Laboratory of repute/ Post Graduate projects supervision. iii) Contribution to Students Affairs or Laboratory Development iv) The above other essential requirements are relaxable for industry / R&D experience.*	None	

SI. No.	Designation, Pay Band and Academic	Essential Qualification and Relevant Experience	Other Essential requirements	Additional Desirable Requirements	Max. Age
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3.	Academic Grade Pay  Associate Professors PB-4: Rs.37,400- 67,000 Academic Grade Pay of	Candidate with very good academic record having Ph. D degree and minimum of 6 years teaching/industry/research experience of which at least 3 years should be at the level of Assistant Professor/Sr. Scientific Officer / Sr. Design Engineer & 1st class in preceding degree.  (Minimum pay in pay band to be fixed at Rs. 42,800/-)	i) 10 papers in SCI/SSCI journals in career #  ii) Two externally funded projects ongoing/completed in career  iii) Contribution to Students Affairs or Laboratory Development  iv) One Ph. D guided (sole/joint)  v) Supervising two or more students for Ph.D. / Preparing e-learning material/ strong liaison with industry/ High value projects.  vi) Academic outreach activities equivalent to two self-financed short term courses/equivalent projects.  vii) The above other essential requirements are relaxable for industry / R&D experience.*	i) Involvement in TEQIP/SAP/FIST/ Projects	No Upper Age Limit

SI. No.	Designation, Pay Band and Academic Grade Pay	Essential Qualification and Relevant Experience	Other Essential requirements	Additional Desirable Requirements	Max. Age
4.		Candidate with very good academic record having Ph. D and a minimum of 10 years' experience of which at least 4 years should be at the level of Associate Professor & 1st class in preceding degree.  (Minimum pay in pay band to be fixed at Rs. 48,000/-)	i) 15 papers in SCI/SSCI journals in career #  ii) Three externally funded projects in career  iii) Contribution to Students Affairs or Laboratory Development  iv) Two Ph. D guided as sole or principal supervisor.  v) Supervising more than three students for Ph.D. / Preparing e-learning material/ strong liaison with industry/ Offering significant support to Institute management /High value projects.  vi) Academic outreach activities equivalent to two self-financed short term courses/equivalent projects.  vii) The above other essential requirements are relaxable for industry / R&D experience.*	i) Involvement in TEQIP/SAP/FIST/Projects  ii) One or more patents  iii) Starting new PG courses	No Upper Age Limit

### Note:

- 1) Applicants who do not fulfill the minimum experience requirements may be offered an appointment on contract. The requirements of minimum qualifications and/or experience may be relaxed in the case of candidates with outstanding credentials. This provision is applicable for all cadres of faculty positions, viz. Assistant Professors, Associate Professors, and Professors.
- # For the faculty members of the Department of Humanities and Social Sciences, Management Studies, Mining Engineering and Mining Machinery Engineering the requirement is a minimum 50% of the required publications (rounded off to the higher whole number) in SCI/SSCI journals and the rest through publications in SCOPUS indexed journals considering 2(two) SCOPUS indexed journal publications equivalent to one SCI/SSCI publication.

<sup>\*</sup> For lateral entry – relaxation given for Industry/R&D experience will be carried forward proportionately to the next higher grade.

# Eligibility & Specialization:

1	Applied Chemistry: M.Sc./M.Tech. in Chemistry/Applied Chemistry/Industrial Chemistry
	with Ph.D. and specialization in Physical /Organic /Inorganic /Theoretical /Materials /Medicinal /Bio-organic /Analytical Chemistry.
2	<b>Applied Geology:</b> M.Sc./M.Sc. Tech in Geology/Applied Geology or M.Tech. in Applied Geology/Geological Technology with Ph.D in relevant field with research publications with specialization in the areas of Hydrogeology, Mathematical Geology, Geostatistics, Sedimentology, Igneous Petrology, Mineralogy, Crystallography, Stratigraphy, Geomorphology, Petroleum Geology, Mineral Economics and Geochemistry.
3	<b>Applied Geophysics</b> : M.Sc. Tech. in Applied Geophysics/M.Sc. Tech. in Geophysics/M.Sc. Geophysics/M.Sc. Exploration Geophysics/M.Sc. Applied Geophysics/M.Tech. in Geophysics/Integrated M.Sc.Tech. in Applied Geophysics/Integrated M.Tech. in Geophysical Technology with Ph.D. with specialization in Gravity & Magnetic Methods, Geophysical Signal Processing, Seismic Methods, Reservoir Geophysics, Well Logging, Electromagnetic Methods, Electrical Methods, Remote Sensing, Seismology, Magnetotelluric Methods.
4	Applied Mathematics: M.SC./Integrated M.Sc./Integrated M.Tech./MS in Mathematics/Applied Mathematics/Mathematics and Computing/Computer Science/Industrial Mathematics and Computing/Statistics/Statistics and Computing/Operation Research and MCA with Ph.D. degree in relevant discipline.
5	Applied Physics: M.Sc. in Physics/Applied Physics/Electronics/Nanoscience/Nanotechnology/ Engineering Physics/Material Science/B.Tech. in Engineering Physics/equivalent degree with Ph.D degree and publications in the areas of specialization in Theoretical Physics and Experimental Physics, namely, Space Physics, Plasma Physics, Nuclear Physics, Particle Physics, Astrophysics, Biophysics, High Energy Physics, Solid State Physics, Thin Film technology, Nano Science, Nanotechnology, Electronics, Theoretical Physics, Atomic and Molecular Physics, Laser Physics, Non-linear Optics, Fibre Optics, Photonics, Condensed Matter Physics, Spectroscopy, Health Physics.
6	Chemical Engg: B.Tech./B.E. in Chemical Engineering with M.Tech./Ph.D in Chemical Engineering related branches with specialization in Computer Aided Process Design, Chemical Equipment and Plant Design, Heat Transfer, Mass Transfer, Chemical Reaction Engineering, Process Control, Chemical Engineering Thermodynamics, Advanced Separation Technology, Catalysis, Fluidization, Petroleum Refining and Petrochemical, Fuel and Energy, Bio Chemical Engineering, Safety and Hazard, Process System Engineering, Material Engineering, Colloidal and Interface Science.
7	<b>Civil Engineering</b> : B.Tech. in Civil Engineering having M.Tech./Ph.D. in relevant field with specialization in Structural Engg./Geotechnical Engg./Transportation Engg./Water Resources Engg./Environmental Engg./RS & GIS.
8	Computer Science and Engineering: B. Tech/B.E/B.Sc.(Engg.) in Computer Science & Engg., Electronics Engg., Electrical Engg., Information Technology with M. Tech./M.E/M.S/Ph.D. in relevant field with specialization in any area of Computer Science & Engineering.
9	<b>Electrical Engineering:</b> B.E./B.Tech in Electrical Engineering/Electrical & Electronics Engineering/Instrumentation/Power Electronics & Drives with M.Tech./Ph.D in relevant field with specialization in Measurement Instrumentation/ Control System/Electrical Machines/Power Systems/Electrical Drives/Power Electronics/Power Electronics & Drives/High Voltage/Energy System.
10	<b>Electronics Engineering:</b> B.E./B. Tech/B. Sc Engg. in Electronics & communication/Electrical/ Electronic & Electrical /Electronics & Instrumentation/ Instrumentation & Control with M.Tech./Ph.D. in relevant field with specialization in Electrical and Electronic Instrumentation/Instrumentation and Control/Microcontroller and Embedded System/Bio-Medical Engineering/Medical Electronics/Microelectronics & VLSI/Signal Processing & Communication Engineering.

11	<b>Environmental Science and Engineering:</b> B.Tech./B.E. in Agriculture, Civil, Chemical, Environmental, and Mining Engineering with M.Tech./Ph.D in the field of Environmental Engineering/Environmental Science & Engineering.  M.Sc. in Atmospheric Science/Environmental Science/Environmental management/ Botany/
	Microbology/Geology/Social Science/Remote Sensing with Ph.D in the field of
12	Environmental Science.  Fuel and Mineral Engineering: B.Tech. in Mineral/Chemical/Metallurgical/ Mining
	Engineering with M.Tech. /Ph.D. in relevant field and/or teaching/research/industrial experience in coal preparation/mineral beneficiation with specialization in Mineral Processing, Coal Preparation, Solid Fuel Engineering, Modeling and Simulation, Plant Designing, Extractive Metallurgy including Agglomeration.
13	Humanities and Social Sciences: English - M.A. in English/ELT/Applied Linguistics/Comparative Literature with Ph.D. Philosophy - M.A. in Philosophy/Ethics with Ph. D. Sociology - M.A. in Sociology with Ph.D. Preference will be given to candidates with additional Degree/Diploma in German/French/Spanish/Chinese/Arabic.
14	<b>Management Studies:</b> Ph.D. from any UGC recognized University/fellowship from IIMs/XLRI/MDI/Institute of Comparable Standard or Professional degree of CA/CS with Ph.D. (with first class at the preceding degree or equivalent) from any UGC recognized University with specialization in functional areas of management viz. Accounting and Financial Management, Marketing Management, Human Resource Management and Operations and Systems Management.
15	<b>Mechanical Engg</b> : B.Tech/B.E./B.Sc. (Engg.) In Mechanical/Manufacturing/Production Engg. with M.Tech./M.E./M.S./M. Sc. Engg./Ph.D with specialization in Machine Design/Thermal Engineering/Production Engg. or any relevant field.
16	Mining Machinery Engg: B.E./B.Tech/B.Sc. Engg. in Mining Machinery Engg./Mechanical Engg./Electrical Engg./Mining Engg. with M.Tech/Ph.D in Mining Machinery Engg./Mechanical Engg./Electrical Engg./Mining Engg./Production Engg./Manufacturing Engg. with specialization in Machine Design/CAD/Maintenance Engg./Tribology/Automobile Engg/Material Science/Fluid Mechanics/Fluid Flow Machines/Safety Engg./Electrical Machines/Power Electronics & Drives/Power System Engg./Instrumentation and Control Mechatronics.
17	Mining Engineering: B.Tech./B.E./B.Sc. Engg. in Mining Engineering/Surface Mining with M.Tech./Ph.D. in Mining Engineering/Opencast Mining/Mine Planning & Design/Rock Excavation Engineering/Tunelling & Underground Space Technology/Geomatics & Mine Surveying/Rock Mechanics/Mine Safety Engineering/Underground Coal Mining/Underground Metal Mining/Mine & Mineral Economics/Mine Ventilation/Computer Applications in Mining. B.Tech./B.E./B.Sc. Engg. In Civil Engineering with M.Tech./Ph.D in Geomatics/GIS & Remote Sensing/Tunnelling & Underground Space Technology.
18	<b>Petroleum Engineering:</b> B.Tech. in Petroleum/Chemical/Petrochemical Engineering with M.Tech/Ph.D. in relevant field with specialization in Petroleum/Petrochemical/ Refining Engineering.

### ISM Campus

Situated in the heart of the country's prime coking coal belt, 260 kms from Kolkata with a campus spread over 208 hectares & fully residential, ISM has all the facilities of a world class academic institute. The campus layout is having picturesque landscape with clean and wide roads and pathways. The campus provides all essential amenities for community living like parks, faculty & staff clubs, shopping complex & canteen, Health Centre, Bank, ATMs, Post Office, playgrounds, swimming pool (under construction), etc. The present campus area is expected to be doubled through contiguous vacant land under process of taking over from the Jharkhand State.

More than eight decades of excellence in Science & Technology Well qualified and dedicated faculty and technical staff Well equipped hostels with computers and internet State of art facilities for education and research Free Internet facility through 1 GBPS terrestrial links

### **General Conditions:**

Reservation for SC/ST/OBC/PH will be followed as per Govt. of India reservation policy. Age relaxation for concerned categories will be applicable as per GOI norms. Age limits, wherever applicable, will be considered as on the date of application.

The number of posts to be filled up may vary. The Institute reserves the right to cancel the recruitment without assigning any reason. The prescribed essential qualifications are minimum and the mere possession of the same does not entitle any candidate to be called for interview. If the number of applications received in response to this advertisement is large, it will not be convenient or possible for the Selection Committee to interview all those candidates. So, the Screening committee of the Institute may restrict the number of candidates to be called for interview to a reasonable limit on the basis of qualifications and/or experience prescribed in the advertisement as per the specific requirement of the Deptt./Institute. No correspondence will be entertained with candidates who are not called for interview/ not selected for appointment. CANVASSING IN ANY FORM WILL RESULT IN DISQUALIFICATION OF CANDIDATURE.

Legal disputes with Indian School of Mines, if any, are restricted to the jurisdiction of Dhanbad courts only.

### **Facilities for Faculty**

- 1. Nomination to International Seminar as per GOI orders. Reimbursement of membership fees of National & International Professional Bodies as per ISM rules.
- 2. Other allowances: Central DA (at present 119%), Transport Allowance, HRA, Reimbursement of tuition fees (for 2 children) upto Rs. 1,500/- p.m. per child.
- 3. Initiation grant of upto Rs. 10 lakhs for research project.
- 4. A cumulative Professional Development Allowance of Rs. 3 lakhs for every block period of 3 years.

ISM is a residential Institute where all students and faculty members & staff reside inside the campus.

Prescribed application forms may be downloaded from ISM website (http/www.ismdhanbad.ac.in) and submitted with all necessary enclosures including **self-attested** copies of educational qualifications, caste certificate (if applicable), experience certificates (if any) etc. along with a crossed demand draft of Rs. 100/- drawn in favour of Registrar, Indian School of Mines. **Application forms complete in all respects must be submitted to Deputy Registrar (Estt.), Indian School of Mines, Dhanbad 826 004.** SC/ST/PH candidates are exempted from paying application fee. Candidates belonging to and applying under SC/ST/OBC Category shall be required to submit attested copies of the latest (not older than six months from the closing date of the advertisement). Caste Certificate must be issued by the competent authority (not below the rank of SDO/SDM) as per Govt. of India directives issued from time to time. Similarly, Physically Handicapped candidates shall be required to submit proof of Physically Handicapped category issued by the competent medical authority. Candidates called for the interview will be reimbursed to & fro railway fare limited to AC-2/Air Economy Fare for the post of Professor and AC-3 for all other posts by the shortest route as per rule.

SC/ST/PH candidates are exempted from paying application fee. Applications will be received any time during the year and will be considered from time to time till vacancies are filled up. The Institute reserves the right to reject any or all applications or it may amend any of the clauses above as per the orders of the competent authority/ Govt. of India. Incomplete applications shall be summarily rejected and no communication in this regard shall be entertained.

Place: Dhanbad Registrar