



Indian Institute of Engineering Science and Technology, Shibpur

भारतीय अभियांत्रिकी विज्ञान एवं प्रौद्योगिकी संस्थान, शिवपुर

ভারতীয় প্রকৌশল বিজ্ঞান এবং প্রযুক্তিবিদ্যা প্রতিষ্ঠান, শিবপুর

(An Institute of National Importance under MHRD, Govt. of India)

Recruitment of Temporary and Visiting Faculty

Advt. No. RO/JL/20/54

Date: 24.07.2020

Applications are invited for the Temporary and Visiting Faculty positions of different academic units through the online portal only starting from 28th July, 2020. For eligibility criteria, specializations and other details please visit www.iiests.ac.in. The last date of online submission of application is 10th August, 2020.

Registrar

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INFORMATION BROCHURE

Applications Invited for Temporary and Visiting Faculty Positions

Date: 27.07.2020

Indian Institute of Engineering Science and Technology, Shibpur invites applications for the position of Temporary and Visiting Faculty for different academic units.

General Guidelines

A. Temporary Faculty:

1. The candidate should have a bright academic background having a Ph.D degree with first class (minimum 60% marks or CGPA 6.5 on a 10 point scale) at both Bachelor's and Master's level in the relevant discipline. Preferences will be given to candidates having outstanding academic records, publications, patents, industrial experiences, post-doctoral / UG-PG teaching / research experiences etc.
2. The age of the candidate must not exceed 60 years as on 10th August, 2020.
3. The appointment will be for two years (four semesters). However, the performance of the temporary faculty will be evaluated at the end of each semester, based on the feedback of the student and the report of the departmental faculty committee.
4. The temporary faculty member has to take any classes (both theoretical and practical), as assigned by the respective Head of the Department. She/He should also take active participation in development of labs, research projects. She/He should also undertake any administrative loads as assigned by the Head of the Department or the Institute Authority.
5. The selected candidate should be well conversed in online teaching practices. For this purpose, the candidate will be required to arrange the necessary electronic devices by himself / herself. In case of working from home, the charges for Internet connectivity will be reimbursed by the institute on receipt of actual expenses, subject to a maximum limit as decided by the Institute Authority. Otherwise he / she has to come to the institute to share the relevant electronic devices available in the concerned department.
6. The remuneration of the temporary faculty shall be a fixed consolidated amount of **Rs.50,000.00** per month with no other allowances.
7. The temporary faculty member shall work full time taking academic/administrative responsibilities at par with regular faculty members. She/He shall be entitled to a privilege leave of 15 days per semester in addition to the institute holidays. Any other leave is subject to the approval of the Director. A temporary faculty shall not be treated as a vacation staff and has to take classes during summer and winter terms.

8. No accommodation will be provided by the institute.
9. A candidate currently employed in a full time job shall have to submit a No Objection Certificate from the employer at the time of interview.
10. Reservation rules of the Government of India shall be strictly followed.
11. The Institute may or may not fill up all the posts declared.
12. The decision of the selection committee shall be final regarding the recruitment of candidates.
13. Candidates should upload a set of self-attested clear scanned copies of the certificates of educational qualifications and experiences along with the application through the online portal only.
14. The candidate should note the date and time of online interview which will be notified in the institute website. The meeting link will be provided through Email of the respective candidate.

B. Visiting Faculty:

1. a) A senior faculty member/retired faculty member of a reputed Academic Institute/ University having a PhD degree with more than 15 years of teaching and research experience; b) A senior scientist/ retired scientist of a Research Organization having a PhD degree with more than 15 years of research experience; c) A senior expert from Industry with Master's Degree and more than 20 years of industrial experience, is eligible for the Visiting Faculty position.
2. The age of the candidate must not exceed 68 years as on 10th August, 2020.
3. The appointment shall be for two years (four semesters).
4. The candidates selected for an academic unit has to take any classes (both theoretical and practical), as assigned by the respective Head of the Department. She/He has to assist in developing laboratories in the department, getting research funding, and introducing new subjects/specializations. The visiting faculty member shall submit a self-appraisal report to the Institute Authority through the Head of the Department, at the end of each semester.
5. The selected candidate should be well conversed in online teaching practices. For this purpose, the candidate will be required to arrange the necessary electronic devices by himself / herself. In case of working from home, the charges for Internet connectivity will be reimbursed by the institute on receipt of actual expenses, subject to a maximum limit as decided by the Institute Authority. Otherwise he / she has to come to the institute to share the relevant electronic devices available in the concerned department.
6. The remuneration of a visiting faculty shall be a fixed consolidated amount of **Rs.75,000.00** per month with no other allowances.
7. The visiting faculty usually shall work full time taking academic responsibilities at par with regular faculty members. The visiting faculty will be entitled to a privilege leave of 15 days per semester in addition to the institute holidays. Any other leave is subject to the decision of the Director. A visiting faculty shall not be treated as a vacation staff and has to take classes during summer and winter terms.
8. Accommodation within the institute campus may be provided for the visiting faculty staying abroad or residing far away from the institute subject to the availability.
9. Reservation rules of the Government of India shall be strictly followed.
10. The Institute may or may not fill up all the posts declared.
11. The candidate will be required to meet online for personal discussion. The date and time of online meeting will be notified in the institute website. The meeting link will be provided through Email.
12. Candidates should upload a set of self attested clear scanned copies of the certificates of educational qualifications and experiences along with the application through the online portal only.

Note:

Existing Temporary, Visiting and Contractual faculty members of IEST Shibpur whose present tenure of contract needs renewal or extension may also apply.

Detail information of the requirement of Temporary and Visiting Faculty for different Academic units.

➤ Department of Electrical Engineering

Number of Temporary Faculty : 05

Number of Visiting Faculty : 03

Specialization: Control System, Instrumentation, Power System, Energy System, Electrical Machines, Power Electronics, Electrical Drives, Illumination engineering.

Subjects to be taught:

Theory: 1. Power System Operation and Control 2. Advanced Process Control and Instrumentation. 3. Electro-Technology in Mining, 4. Electrical and Electronics Measurements, 5. Modeling and Control of Physical Systems, 6. Illumination Science, Engineering and Design, 7. Basic Electrical Engineering in other departments.

Sessional: 1. Electro-Technology Lab, 2. Sessional on DC-II/III (Advanced Power System Analysis and Power System Operation and Control for PES, 3. Control System Simulation Lab, 4. Lab on Process Control and Instrumentation, 6. Measurements Lab, 8. Lab on Modeling and Control of Physical Systems, 9. Numerical Simulation and Application Tools Lab, 10. Electrical Machines Lab, 11. Lab on New and Renewable Energy, 12. Sessional on DC-I (State Variable Analysis), 13. Basic Electrical Engineering Laboratory for different sections of different departments, 14. Sessional on DC-II/III for CSI (Theory of Discrete and Digital Systems and Advanced Process Control and Instrumentation, 15. Lab on Advanced Process Control & Instrumentation, 16. Lab on Advanced Power Systems Analysis.

➤ Department of Mechanical Engineering

Number of Temporary Faculty: 02

Number of Visiting Faculty: 02

Specialization: Manufacturing, Production, Machine Design, Thermal Science

Subjects to be taught: Automation and computerized manufacturing, Machine Tool and Metal Cutting Laboratory, Computer Integrated Manufacturing System, Advanced Material Processing Laboratory, Applied Elasticity and Plasticity, Advanced solid mechanics Laboratory, Non-conventional energy systems, Steam Power Laboratory.

➤ Department of Civil Engineering

Number of Temporary / Visiting Faculty: 03

Specialization: Structural Engg / Geotechnical Eng. /Transportation Eng. / Environmental Eng. /Water Resources Eng.

Subjects to be taught:

Theory: Environment and Ecology, Chemistry for Environmental Engg , Surveying, Estimation, Valuation and Project Planning.

Sessional: Estimation Practice, Buld Plan Proj.

➤ **Department of Electronics and Telecommunication Engineering**

Number of Temporary / Visiting Faculty: 05

Specialization:

Communication Engineering and Signal Processing/Data Communication and Computer Network - 2

Microelectronics and VLSI Design – 2

Microwave Engineering - 1

Note: Specialization with Data Communication and Computer Network requires M.E./M.Tech. in Computer Science or equivalent; Other specialization requires M.E./M.Tech. in Electronics and Communication.

Subjects to be taught:

Theory

Analog VLSI Design, VLSI and CAD, VLSI Testing, Introduction to Electronic Communication Systems, Advanced Digital Communication, Satellite Communications, Electronic Communication Systems, Signals and Systems, Advanced Antenna Engineering, Audio and Video Systems, Microprocessors and Microcontrollers, Low Power VLSI Design.

Sessional

VLSI Design Lab, CAD Lab, Basic Electronics Lab, Integrated circuits and systems Lab, Audio and Video Systems Lab, Microprocessors and Microcontrollers Lab.

➤ **Department of Aerospace Engineering and Applied Mechanics**

Number of Temporary Faculty: 03

Number of Visiting Faculty: 01

Specialization: Applied Mechanics / Mechanical / Civil / Aerospace Structures

Subjects to be taught:

Theory: Engineering Mechanics (for Architecture), Mechanics, Aerospace Structural Dynamics.

Sessional: Drawing, Strength of Materials Lab, Hydraulics Lab

➤ **Department of Metallurgy and Materials Engineering**

Number of Temporary Faculty: 01

Number of Visiting Faculty: 01

Specialization: Processing and Characterization of Materials, Process Metallurgy.

Subjects to be taught:

Theory: Physics of Materials, Surface Treatment and Modification, Microstructure Modelling, Metal Casting Technology, Iron and Steel Making, Advanced Iron and Steel Making.

Sessional: Physics of Materials Laboratory

➤ **Department of Mining Engineering**

Number of Temporary Faculty: 04

Specialization:

Geoinformatics - 02

Masters in Geography/Geology/ Earth Science or M.Tech in Geoinformatics and PhD. in application of GIS and Remote Sensing.

Teaching Experience: Minimum 3 years in teaching GIS and Remote Sensing would be preferred.

Mining Engineering - 02

B.Tech/M. Tech degree in Mining Engineering and PhD in Mining Engineering or considerable field experience in mines.

Subjects to be taught:

Geoinformatics Specialization :

Theory:

Fundamentals of Remote Sensing, Basic Geographic Concepts, Fundamentals of Cartography, Geodesy and GNSS, Digital Image Processing, GIS & RS application to natural resources, Remote Sensing and Image Processing, Digital Image Processing of Remote Sensing data, Advanced Geographical Information System, 6.Geostatistics and WebGIS, Geographical Information System and Remote Sensing.

Sessional:

Fundamentals of Geographical Information System Practical, Fundamentals of Remote Sensing Practical, Fundamentals of Cartography practical, Geodesy and GNSS practical

Mining Specialization

Theory: Mining Machinery, Mine system analysis and design, Exploration and shaft sinking Underground Mining Machinery, Project Management, Advance Mine Planning and Design, Resource Evolution and Geostatistics. Sustainable Resource Management, Opencast Mining Machinery, Design of mining layout.

Sessional: Seminar and Report Writing Mine system analysis and design laboratory, Underground mine environment laboratory

➤ **Department of Earth Sciences**

Number of Temporary / Visiting Faculty: 02

Specialization: Geophysics, Ore Geology.

Subjects to be taught:

Geophysics (theoretical), Ore Geology (both theoretical and practical), Engineering Geology.

➤ **Department of Physics**

Number of Visiting Faculty: 01

Specialization: Condensed Matter Physics

Subjects to be taught:

Theory: Classical Mechanics, Basics & Applications of Quantum Mechanics, Advanced Laboratory.

➤ **Department of Humanities and Social Sciences**

Number of Temporary Faculty: 04

Specialization:

Economics - 2

Management - 1

Sociology - 1

Subjects to be taught:

Economics - Both Macro and Micro

Management - marketing, finance or HRM

Sociology.

➤ **Centre for Healthcare Science and Technology**

Number of Temporary Faculty: 02

Number of Visiting Faculty: 01

Specialization: Biomedical, Biotechnology, Pharmaceutical Engineering with expertise in biomaterials, Medical Devices and Instruments, Biomedical Optics and Imaging, Cell Biology, Biomechanics, Regenerative Medicine, Bioinformatics.

Subjects to be taught:

M Tech Biomedical Engineering: Fundamentals of Biomaterials, Biomedical Sensors & Instrumentation, Materials and Mechanics in Medicine, Statistics & Accident Analysis, Cell Physiology.

M Tech Safety and Occupational Health Engineering: Safety Procedures and Management, Safety in Operations, Safety in Materials and Mechanical Handling.

➤ **School of Community Science and Technology**

Number of Temporary Faculty: 01

Specialization: Food and Nutrition

Subjects to be taught: Food Chemistry and Analysis, Nutrition and Dietetics, Community Nutrition, Food Chemistry and Analysis (Lab), Food Safety and Quality Assessment.

➤ **M.N. Dastur School of Materials Science and Engineering**

Number of Temporary Faculty: 01

Number of Visiting Faculty: 02

Specialization: Materials Science and Technology

Subjects to be taught:

Introduction to Materials, Advanced Characterization of Materials, Metallic Materials, Crystallography and X-ray diffraction, Ceramic Materials, Polymeric Materials, Electronic Materials, Heat Treatment and Materials Processing Lab., Ceramic and Polymer Synthesis Lab.

➤ **Center of Excellence for Green Energy and Sensor Systems**

Number of Temporary Faculty: 01

Number of Visiting Faculty: 01

Specialization: Wind power and Biomass energy Technology, Solar Photovoltaic Power Plant Design

Subjects to be taught:

Energy from Wind and Biomass, Biomass Energy Technology: Design and Performance, Solar Photovoltaic Power Plants: Design and Performance.

Note:

- 1) B. Tech/ M. Tech in Mechanical Engineering with Teaching/Working experiences in Wind Power/Biomass Technology is preferred.
- 2) Experience in Solar Photovoltaic Power Plants

➤ **School of Mechatronics and Robotics**

Number of Temporary Faculty: 02

Specialization: Control Systems, Automation and Robotics

Subjects to be taught:

Advanced Control Systems, Fundamentals of Electronics Engineering, Embedded System Application, Product Design and Development, Control Systems Lab, Automation and Robotics.

➤ **School of Management Sciences**

Number of Temporary Faculty: 06

Specialization: Marketing, Human Resource, Operations Management, Accounting and Finance, Business Analytics and Quantitative Techniques, General Management.

Number of Visiting Faculty: 01

Specialization: Business Policy and Strategic Management

NOTE:**Temporary Faculty**

Candidates should hold a Ph.D. degree from a reputed institute with postgraduate degree in (i) marketing management, (ii) human resource management., (iii) Operations/ Industrial Eng and Management, or a closely related discipline. Applicants should have at least 1 year of teaching experience in related areas.

Visiting Faculty

Candidates with postgraduate degree from a reputed institute with minimum of 10+ years of teaching or research or industry experience. Applicants should have demonstrated leadership role in industry at the level of director or Vice President or should have been at the level of professor in premiere institute. PhD degree is desirable.

Subjects to be taught:

Marketing Management; International Marketing; Consumer Behaviour and Market Research; Advertising, Sales and Distribution Management; Advanced Marketing Management; Brand Management and Advertising; Consumer Psychology.

Human Resource Management; Performance, Compensation and Reward Management; Advanced Human Resource Management; Corporate Human Resource Planning and HRD Audit.

Production and Operations Management; Logistics and Supply Chain; Quality Management Systems; Service Operations Management; Technology Management; Quality and Performance Management; Innovation Management and New Product Development.

Managerial Accounting; Financial Management; Company Accounts and Corporate Taxation and Tax Planning; Strategic Financial Management and Security Analysis and Portfolio Management; Financial Markets, Financial Institutions and Services; International Financial Management.

MIS; Quantitative Methods in Management; Operations Research; Information Technology Management.

Principles of Management and Organizational Behaviour; Managerial Economics; Introduction to General Management; International Marketing; Project Management and Financing.

Business Environment and Legal Systems; Entrepreneurship Management; Industrial Relations and Labour Laws; Strategic Management.

Business Communication; Society, Ethics and Sustainability.

Sd/-

(Prasanta K.Nandi)
Dean(FW)