Pandit Deendayal Energy University

(Formerly Pandit Deendayal Petroleum University - PDPU)

NAAC Accredited A++

NIRF Ranking**:** Engineering – 106 | Management - 89

GSIRF Rating - ★★★★★

Ph.D. Admissions – July 2023 Session

Research Areas in the disciplines of –

Engineering | Sciences | Humanities & Social Sciences | Management

For detailed information and to apply online:

Visit - https://www.pdpu.ac.in/admissions-doctoral.html

Including the research in

i) Energy Technology under Prime Minister's Fellowship Scheme in partnership with M/s bp (Fellowship starting @ Rs.70,000/- p.m.)
For details visit – https://www.primeministerfellowshipscheme.in/

ii) Energy Sector Management through PDEU & NSB (NTPC School of Business) Academic Research Initiative
For details visit – https://nsb.ac.in/

CONTENTS:

1. <u>ELIGIBILITY</u>

A student seeking an admission to Ph. D. Programme of the University is required to have minimum educational qualification as mentioned hereunder

A 1-year/2-semester master's degree programme after a 4-year/8-semester bachelor's degree programme or a 2-year/4-semester master's degree programme after a 3-year bachelor's degree programme or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.

Provided that a candidate seeking admission after a 4-year / 8-semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.

<u>For research in Engineering / Technology</u>

M. Tech. / M. E. / M. Sc. (Tech.) or its equivalent along with Four Year Graduation as recognized by UGC / AICTE in with Four Year Graduation as recognized by UGC / AICTE in appropriate area.

M. Sc. (Physics / Chemistry / Electronics / Nanotechnology / Materials Science) eligible to apply also for the research areas related to Solar Energy.

<u>For research in Sciences</u>

M. Sc. degree or its equivalent as recognized by UGC in appropriate area.

<u>For research in Management</u>

M. B. A. / M. Tech. / M. E. / A. C. A. / A. I. C. W. A. / A. C. S. level or its equivalent as recognized by UGC / AICTE in appropriate area.

<u>For research related to Liberal Studies</u>

Master's Degree or its equivalent as recognized by UGC in appropriate area.

2. RESEARCH AREAS

FACULTY OF ENGG. & TECHNOLOGY

- *Solar Energy:*

  Compound semiconductor thin films materials and silicon for high-efficiency homo and heterojunction Photovoltaic Solar Cell. High Energy density Li ion battery and Super capacitors, DSSC, Solid state DSSC based on perovskite, Organic Solar Cells, Solid Oxide Fuel Cells, Computational material science for solar cell including optimization of optical and electrical properties, Photocatalytic Water Purification, Photocatalytic CO_2 capture, Photocatalytic and Electrocatalytic Hydrogen Generation, PV plant performance, Energy policy and regulation and Data validation of megawatt scale Solar PV power plant. Perovskite solar Cell, Solar Photovoltaic in Agriculture.

- *Mechanical Engineering*:

  Thermal Engineering:

  Renewable Energy: Biodiesel, Wind energy, Solar hybrid technology, Solar thermal applications, marine renewable energy. Hydrogen Energy, CO_2 Capture and Recycling, Recycling of E-waste, Industrial waste, and Li-ion batteries.

  Thermal and Fluid Engineering:

  Water desalinization, Thermal comfort, Advanced refrigeration system, tri-generation, Industrial effluent treatments. Computational fluid dynamics (CFD), Fluid flow control, control theory, Fluid Flow Instability and Hydrodynamics, Transition and Turbulent flows, CFD applications: IC engines and alternative fuels, material processing, Heat and fluid flow, Melting and Solidification, Microstructure modelling, Natural convection, Rayleigh-Bernard convection, Direct Numerical Simulations, Cavitation studies.

  Energy storage - Li ion batteries, Na ion batteries, Battery chemistry, thermal management, automotive applications. Nano Materials: Synthesis, Chemistry, and performance correlation studies, Bio-microfluidics and Lab-on-chip, thermal energy storage using PCM and its applications

  Thermal System Design:

  Thermal system design and optimization, Exergy analysis of thermal system, waste heat recovery, Thermal system design for enhancing heat transfer rates for extremely high heat flux applications.

  Design Engineering:

  Finite Element Analysis, Additive Manufacturing/Rapid Prototyping, Innovative and creative materials for rapid prototyping processes, Numerical and Experimental investigations of Fused Filament Extrusion techniques. Composite materials, computational mechanics of materials: stress analysis and optimization, Mathematical modelling of advanced materials, optimization, continuum damage mechanics, Stress Analysis, Vibration based fault diagnosis and condition monitoring, Signal and Image Processing for state identification of components, Machine learning and Artificial intelligence application in design of components,

Optimization techniques. Tribology, Fluid film lubrication, surface texturing, smart lubricants. Nonlinear dynamics, sandwich structures, smart materials. Failure analysis and Mechanical behaviour of materials, small scale specimen testing technique.

Manufacturing and Industrial Engineering:

Additive manufacturing, Wire Arc Additive Manufacturing, Ultrasonic additive manufacturing and Solid State Additive Manufacturing., EDM wire cut, EDM; surfacing and electrochemical machining; , Electro-chemical discharge machining (ECDM), Wire-ECDM, Electro-chemical deburring, Friction Stir welding and processing of materials, Numerical modelling and simulation of manufacturing processes, Lithium ion batteries, Tools and Coatings, Microwave processing of materials, Laser processing of materials, Corrosion and Coatings, Electrochemical machining and 3D printing, Micro machining, Surface texturing and metrology, Wear, Friction & Tribology, Super plasticity, wear behavior of surface composites, friction surfacing, hybrid welding, Metal cored and flux cored arc welding, Flux assisted TIG welding, Laser welding & ultrasonic welding. Advanced Product Inspection using Image processing, Industry 4.0 applications in manufacturing.

Industrial Management:

Project Management; Operation & Supply Chain Management; Materials & Procurement Management; Quality & Reliability Management.

Entrepreneurship:

Micro Small & Medium Enterprise; Entrepreneurship; Innovation.

- *Electrical Engineering:*

Electrical Power Systems, Power System Protection, High Voltage Engineering, EHV AC and HVDC system, Power Quality, Power system stability and control, Distributed generation, Integration of Renewable Energy sources with grid, Smart grids and micro grids, smart buildings, optimization in power system, Cyber security, IoT and data analytics in power system, Electrical machines Power electronics and drives, Instrumentation, Process Control and Control systems.

- *Electronics and Communication Engineering (ECE):*

High-speed VLSI interconnects, devices, and circuits; CNTs, GNRs, and Hybrid interconnects , Computational Electromagnetics, Antenna, Energy Harvesting, Tunable Microstrip antenna, Machine Learning in Antenna, Passive Optical, and Microwave device design, Semiconductor based Optoelectronic Devices , AI/ML/DL for Medical Signal Processing, EEG Data Analysis, Pattern Recoginition, Energy Efficient Medical Device and sensors, Massive MIMO, mmWave multi-user MIMO, NOMA, OTFS, RIS-aided Massive MIMO, Optimization, Machine Learning, NOMA for 5G and beyond network, heterogeneous and hybrid networks, stochastic geometry, mm-wave communication, and intelligent reflecting surfaces, Perovskite Solar Cell, Photodetector, Biosensor, and Low Dimensional (1D, 2D, 0D) Semiconductor based Optoelectronic Devices , High-speed VLSI interconnects, devices, and circuits; CNTs, GNRs, Hybrid interconnects, Novel CMOS device design, Microelectronics devices, Device circuit co-design, low power VLSI design, Gate all around FET and its applications

- *Chemical Engineering:*

Industrial Decarbonization: Carbon dioxide abatement for Environment (Carbon Capture and Utilization Technology for Clean energy), Energy Efficient CO_2 Separation Processes, Nanotechnology:- Novel Nanomaterials synthesis and applications, Advanced materials for storage applications, Deep Eutectic Solvents/Ionic liquids synthesis and applications; Bio-fuels and biodiesel; Advancement on waste water treatment; Membrane preparation and its characterization, membrane separation for gas and liquid application, synthesis and application of functional materials, Catalysis and reaction engineering for hydrocarbon oxidations, Utilization of biomass-for fine chemicals, Solid waste management:- Recycling and Reuse. Geothermal-Solar hybrid desalination system, Groundwater quality assessment for Sustainable Development, Artificial Intelligence and Machine Learning in Groundwater quality assessment and prediction, Molecular simulation studies of structure, dynamics and thermodynamics of polymers in solutions, Macromolecular self-assembly studies via molecular simulations.

- *Civil Engineering:*

Geotechnical Engineering:

Ground Improvement, Soil-Structure Interactions, Applications of Geosynthetics, Waste Management and Utilization, Geodynamics and Earthquake engineering, Seismic Hazard and Microzonation studies, Grouting, Numerical Analysis and Applications, Rock Mechanics, Tunneling and Underground Structures, Geo-environmental problems.

Transportation Engineering:

Application of AI / Machine Learning Technique in Transportation Engineering, Traffic Engineering, Utilization of Waste in Pavement, Modeling / Simulation of Traffic / Urban Planning, Construction Engineering and Management.

Structural Engineering:

Computational Solid Mechanics, Concrete, Structural Optimization, Nanotechnology in eco-efficient concrete construction, Cost Effective Green Technology in construction, Plate bending finite elements for laminated composites and functionally graded materials.

Construction Management:

Project Management, Construction Management, Building Information Modelling, Sustainable development, Risk Assessment, Applications of IoT and Cloud Computing in Construction Industry.

Environmental Engineering:

Measurement and Modeling; Atmospheric Physics and Chemistry; Climate Change; Indoor Air Pollution; Source apportionment; Carbon Isotope; Design and Development of low cost sensors; Solid waste disposal and related soil and air pollution, Water treatment / wastewater management and treatment / solid waste management.

Water Resources Engineering and Management:

Flood hazard and risk Modeling, Hydrodynamic Modeling, Flood Assessment, Watershed management, GIS and Remote Sensing Applications.

- *Sciences:*

Physics**:**

Non-linear Optical Materials, Bio-Materials; Transparent Conduction Oxide, Computational Material Science, Density functional theory, Drug delivery and bio-sensing applications, Thermoelectric materials and Thin Film Transistor, Flexible Electronics, Hybrid Electronic Materials (Perovskites) and Devices including Memory, Artificial Synapses, Solar cells, Light-Emitting Diodes, Plasma Physics and Applications; Global Warming and Climate Change; Atmospheric Physics, Remote sensing and Modelling of Ocean and Atmosphere, Magnetic Properties and Material; Laser and Photonics; Experimental Nuclear Physics, Bulk and flexible thermoelectric Materials, Transparent Oxide Semiconductors (TOS), High Electron Mobility Transistors (HEMT), Two Dimensional Electron Gas (2DEG).

Chemistry**:**

Synthetic Organic Chemistry; Asymmetric Synthesis; Materials Chemistry; Homogeneous and Heterogeneous Catalysis; Nanomaterials & Photocatalysis; Fuel Cell Technology; Materials for energy storage and conversion; Soft Matter; Medicinal and Environmental Chemistry; Geochemistry; Computational & Theoretical Chemistry

Mathematics**:**

Mathematical Biology, Computational Neuroscience, Fractional Modeling of Real world problem. Performance measure of distribution warehouses and Software Reliability, Developing Prediction Models, Boundary Element Methods (BEM) for Fluid Flow Problems, Dual Boundary Element Methods (DBEM), Dual Reciprocity Boundary Element Methods (DRBEM), Wave Hydrodynamics, Coastal Engineering, Renewable Energy, Finite Element Methods in Fluid Dynamics, Computational Seismology, Continuum Mechanics, Solid Mechanics, Functionally Graded Materials, Applied Mathematics in Environmental Sciences.

Ocean models, Cryosphere Studies, Data assimilation. Mathematical Modelling, Optimization. Magnetohydrodynamics, Computational Fluid Dynamics, Classical General Relativity. Numerical Reservoir Modeling and Simulation, Applied Geophysics and Geostatistics, Fuzzy Sets.

Analytical and Numerical treatment of fluid flow problems, non-Newtonian fluid flows: Biological and Industrial applications.

Asset Pricing & Financial Mathematics, Applications of Fractional Calculus in Sustainable development Goals.

Queueing Modeling in Markovian and Non-Markovian Environment, Optimal Control and Optimization using Nature-Inspired Algorithms.

- *Computer Science and Engineering:*

Security: Block Chain Technology, Cyber Security, Information Security and Privacy, Internet Security, cryptography, Authentication, Cyber Physical Systems. Parallel and Distributed Computing: Cloud Computing, High Performance Computing, Fault Tolerant Computing, fog computing, edge computing. Computer Vision: Image Processing, Video surveillance, Pattern Recognition, Machine Learning, Deep Learning, Remote Sensing, Explainable AI, Industry 4.0. Networking: Wired and Wireless Network, Wireless Sensor Networks and Internet of Things, Software Defined Network, Data Science: Natural Language Processing, Big Data Analytics. Semantics Web: Ontology, Knowledge Databases. Data Structures and Algorithms, Computational Geometry.

▪ *Information & Communication Technology:*

Ambient Assisted Living, Intelligent Digital Speech Signal Processing, Intelligent Financial Signal Processing and Algorithmic Trading Strategies, Antenna Design, High frequency systems, Machine -learning in RF passive component design, Antenna design for intelligent systems, Antenna applications and emerging technologies, Microwave imaging, image reconstruction, computational electromagnetics and learning analytics, Industrial IoT, Machine vision and applications, smart Biomedical devices, Artificial Intelligence, Machine learning, Image Processing, Wireless senor networks, Communication, VLSI Design and EDA, Machine Learning for Wireless Communications, Machine Learning for intelligent Optical Networks, Artificial Intelligence in Optical Communications, FPGA Based VLSI system design, Hardware accelerator design for Image and video processing algorithms, Tiny ML, Power-aware ML architecture for edge devices, Computer Architecture, and Biomedical Instrumentation. VLSI Technology, Nanoelectronics, 2D materials, Sensors, Device fabrication, Nanotechnology, and Flexible-electronics, EEG Data Analysis, Healthcare informatics, Human-Computer Interaction, Bio-Medical Image/Data Analysis using Artificial Intelligence.

PETROLEUM TECHNOLOGY

Earth Science (Paleontology; Ichnology, Basin Analysis, Paleoclimetology and Geochemistry); Hydrocarbon Exploration (Geological and Geophysical), Drilling Engineering (Driling Fluids); Hydrofracturing, Diverter technology; Driling and Stimulation, Cementation; Production Engineering, Reservoir Engineering (Numerical Modelling and Simulation), Reservoir Modeling; Natural Gas Engineering. Unconventional energy (Shale Gas; Gas Hydrates; Geothermal), Enhanced Oil Recovery (Chemical, Simulation, experimental; Nanotechnology and Microbial); Crude Oil Characterization (Molecular); Coal Characterization, CO_2 Sequestration and Storage, Flow assurance, Computational Fluid Dynamics, Crude Oil Processing, Petroleum Refining Processes Technology, Hydrogen fuel; Biofuels, low salinity water EOR, Graded materials for offshore structures, Hydrogen Production and Storage.

Note: The candidates selected for the admission in Ph.D. program would have further scope to qualify for the Prime Minister's Fellowship scheme in partnership with M/s bp, for research areas* as per the norms:

*Research Areas:
(1) Solar Energy
(2) Wind Energy
(3) Tidal Energy
(4) Hydrogen Energy
(5) Geothermal Energy
(6) Biomass Energy
(7) Hydel (Small Hydroelectric) Power Station

For further details it is advised to refer:

https://www.primeministerfellowshipscheme.in/

FACULTY OF MANAGEMENT

i) ENERGY SECTOR MANAGEMENT: Petroleum & Natural Gas; Energy Transition; Hydrogen Economy; Energy Economics; Energy Impact on Climate; Energy System Modeling; Power Sector Management; Renewable Energy; Hydrogen; Carbon Sequestration System; Energy Storage; Electric Vehicles; Energy Trade in SAARC Countries; Energy Policy & Regulations and other related areas.

ii) Marketing, Operations Management, HRM & Organizational Behavior, Information Systems Management, Strategic Management, Financial Management and Accounting, Entrepreneurship, Data Science in Business.

Note: PhD candidates desirous of pursuing their research in Energy Sector, in addition to Faculty of Management at PDEU, shall also have an option of joining their research through the PDEU-NTPC School of Business Academic Research Initiative. Final allocation of the option however shall depend upon candidate's area of interest and suitable research supervisor.

FACULTY OF LIBERAL STUDIES

English Language & Literature, Public Policy & Public Administration, Psychology, Political Science-International Relations, Commerce, Economics, Business administration (Marketing & Finance), Mass Communication.

3. SELECTION PROCEDURE

There will be a two stage process**:**

i) Written Aptitude Test (WAT) shall consist of 50% weightage on research methodology and 50% weightage on subject specific questions. As a part of this, the question paper on Research Methodology will be of 50 marks, each question will carry one mark. Subject wise Entrance Test will be conducted, which consists of 100 questions, each carrying 1 mark.

Entrance test shall be qualifying in nature with qualifying marks as 50%, and only such candidates will be eligible to appear at the PI - Personal Interview / Viva Voce.

A relaxation of 5 % marks will be allowed in the entrance examination for the candidates belonging to SC/ST/OBC/differently-abled category, Economically Weaker Section (EWS), and other categories of candidates as per the decision of the Commission from time to time.

ii) Candidates shortlisted on the basis of the Entrance Test as mentioned above will be required to appear for PI wherein the candidates have to discuss their research interest / area through a presentation before a duly constituted Committee. The PI shall consider the following aspects, viz.**:**
   a) Research objectives, Literature Survey, Methodology, Expected results, List of papers referred, & also industry tie up if any.
   b) Research Methodology aspects for preparing Doctoral Proposal.
   c) The candidate possesses the competence for the proposed research.
   d) Whether the research work can be suitably undertaken at the University.
   e) Contribution to new / additional knowledge out of the proposed research.
   f) Competence for the proposed research.

Admission merit list for the eligible candidates who qualified in the written test and appeared in PI will be based on 30% of Personal Interview (PI) score, and 70% of Entrance Test score.

While appearing at the selection procedure, the candidate is required to produce original copies of his/her testimonials in support of the candidature. The candidate shall have to ensure all fulfillments to the eligibility requirements while applying for admission.

Application Fee: Rs.700/- (Non Refundable).

4. SEMESTER FEES

Non Refundable Fees**:**

For Part Time students   **:** Rs.50,000/- per semester
                           (Except Hostel, Mess, Transportation and alike)
For Full Time students   **:** Rs.25,000/- per semester as Tuition fees
                           (Except Hostel, Mess, Transportation and alike)

Hostel Accommodation shall be subject to the availability of seats as per the norms.

Other incidental fees shall be chargeable from time to time. No request for the fee refund shall be entertained.

Refundable Fees**:**

- Library Deposit   **:** Rs.5,000/-
- Caution Money Deposit   **:** Rs.10,000/-

The second semester fees shall be collected in installment of Rs.5,000/- per month during the first semester from the fellowship given to the full time students, if any by the University; and so forth for the fees of third semester onwards. The remaining sum collected from the fellowships will be refunded to the student after successful completion of the Ph. D. programme as defined in the academic rules.

It is to be noted that all the processes in pursuance to Ph. D. programme will be conducted mostly on working days and further during normal office hours only; and all the candidates admitted in Ph. D. programme shall have to make convenient to attend such processes accordingly, irrespective of their category whether Full time or Part time.

5. FINANCIAL ASSISTANCE FOR FULL TIME CANDIDATES

The University offers financial assistance from its own resources as per its availability in the name of scholarship, who would qualify as per the norms specified below on merit basis as follows:

I.   Up to first two years **:** Rs.25,000/- per month as research scholarship
     In the third year   **:** Rs.30,000/- per month as research scholarship

     Continuance of the scholarship shall subject to punctuality, discipline, good academic / research progress review.

After third year, the scholarship may continue subject to Semester wise review scrutiny by the Doctoral Committee, but not beyond the fourth year, or till the submission of the Synopsis / Thesis, whichever is earlier.

It shall be mandatory to perform the duties as Teaching Assistant for all the full time candidates availing the scholarship.

M. E. / M. Tech. qualified candidates with valid GATE score admitted to pursue Ph. D. on full time basis in the research areas of Engineering & Technology may be granted the scholarship as mentioned above on merit basis.

M. Sc. (Technology) in GeoScience (3 year full time) qualified candidates having valid GATE / NET / SLET / CSIR score admitted to pursue Ph. D. on full time basis in the research areas of Engineering & Technology may be granted the scholarships as mentioned on merit basis.

The candidates admitted to pursue Ph. D. on full time basis in the research areas of Management may be granted the scholarships as mentioned above on merit basis provided they have valid CAT score with a minimum of 75 percentile at the time of the admission tests or a valid UGC NET / CSIR-UGC NET / SLET/ GATE score.

The candidates admitted to pursue Ph. D. on full time basis in the research areas of Sciences and areas under School of Liberal Studies may be granted the scholarships as mentioned above on merit basis provided they have a valid UGC NET / CSIR-UGC NET / SLET/ GATE score at the time of the admission tests.

Maximum 2 no. of such scholarships are allotted in every Department of Engineering, 2 for every department of SLS, and 2 for SPM.

No other Financial Assistance / Aid will be given to all such students.

The continuance of the Research scholarship shall be subjected to the six monthly academic review, discipline and punctuality of the candidate.

The above policy-procedure is subject to modification whenever found necessary by the University.

II. A financial assistance in the form of a Teaching Assistance (T.A.) ship on merit basis is also available for the students who would not be receiving above referred financial assistance: Rs.10,000/- per month.

Maximum 2 no. of T. A. ship are allotted in each department of engineering, 2 for each department of SLS, and 2 for SPM.

III. A financial assistance as sustenance allowance of Rs.6,000/- per month for those who would not be receiving any financial assistance from the above referred categories - I & II, or from any other source.

This T. A. ship may be continued up to 3 years on satisfactory performance based on overall review from semester to semester. During these 3 years such students may be given financial incentive of Rs.2,000/- per publication in approved peer reviewed journals.

The continuance of the financial assistance / T. A. ship shall be subjected to the six monthly academic review and recommendation of the doctoral committee, discipline and punctuality of the candidate.

Contingency allowance of maximum Rs.10,000/- per year as per the norms. No other Financial Assistance / Aid will be given to all such students.

Other Conditions:

i) The Research Scholar will have to assist the University / School / Department in its academic work, including tutorials, assignments, laboratory demonstration, supervision of fieldwork, library activities, group seminars, workshops, symposia, etc. from time to time. The total time to be spent on such activities will be around ten hours a week.

ii) The grant of the scholarship is subject to the condition that the student does not receive any financial assistance in shape of scholarship / any emoluments, salary, stipend etc. from any other source during his / her course of study at the Institute.

iii) Foreign students and sponsored candidates are not eligible for the scholarship.

iv) It will be obligatory on the part of every full time Ph. D. student to undertake around ten hours a week of work related to academic & co-academic and research activities as assigned to him / her from time to time. This include tutorials, laboratory classes, development and maintenance of laboratories, assistance in research and activities undertaken by faculty members, maintenance and operation of computer and other central facilities, assistance in library, examinations, etc.

v) The scholarship will be granted to the student on a monthly basis subject to the satisfactory academic performance and adherence to the University / Institute norms / rules and regulations as applicable time to time, certified by the Supervisor, HoD, Dean, School Director and obligatory work as assigned.

vi) The student shall be required to give an undertaking to the effect that he / she would not leave the programme midway. In case any student leaves the course in midway he / she will be required to refund the total amount of the financial assistance drawn so far, at the time of leaving the programme.

Cancellation of Financial Assistance:

The financial assistance is liable to cancellation, in case of misconduct / indiscipline / unsatisfactory progress of research work / failure in any examination related to Ph.D. or he / she is found ineligible later.

6. CATEGORIES OF Ph. D. STUDENTS

The University admits students for Ph. D. programme under the following categories:

REGULAR (FULL-TIME):

This category refers to the candidates who work full time for their Ph. D. and may receive scholarship / assistantship from the University as per its policy or scholarship from CSIR / UGC or any other recognized funding agency or may be self-financed.

SPONSORED STUDENTS (FULL-TIME)**:**

A candidate in the category is sponsored by a recognized R&D Organization, National Institute, Academic Institution, Government Organization or Industry for doing research at PDEU on a full time basis. He/She is required to have at least two years of work experience at the respective field. He/She will not receive any financial support from the University. Sponsorship letter (Form-I) should be attached with the application.

PROJECT STAFF (PART-TIME)**:**

This category refers to the candidates who are working on sponsored projects in any School of the University and admitted to the Ph. D. programme. The duration of the project at the time of admission should be at least 2 years.

LOCALLY & PROFESSIONALLY EMPLOYED PERSONNEL (PART-TIME)**:**

This category refers to the candidates who are locally and professionally employed personnel. These candidates should be able to meet supervisor(s) regularly at the University for the guidance on their research work. The applicant must be a regular employee of a recognized R&D Organization, Institute, Academic Institution, Government Organization or Industry at the time of admission and be engaged in professional work in the discipline in which admission is sought. No financial assistance will be provided by the University to such students. It shall be the responsibility of the candidate to submit the "No Objection" Certificate from the Head of the Institute / Organization in which he/she is employed (Form-II) at least before paying the fees of the admission, if offered otherwise the admission shall be liable to cancellation without issuing any notice.

SPONSORED STUDENTS (EXTERNAL REGISTRATION) (PART-TIME)**:**

This category refers to candidates employed in R&D organizations related to Science, Technology and Engineering having adequate research facilities. The research work leading to the Ph. D. degree may be carried out largely at the parent organization of the candidate under a Local Supervisor from the Organization but with the overall guidance and advice provided by a faculty member of the University (School Supervisor) under whom he/she is registered. The appointment of the Local Supervisor is to be reported to the Director General of the University through the Director of the concerned School of the University for final approval. Sponsorship certificate from the Head of the Organization where the candidate is employed (Form - III) is required to be enclosed at the time of application. No financial assistance from the University will be provided to such students.

7. <u>IMPORTANT DATES</u>

Particulars	Date
Last date for Online Application	1st June 2023
List of candidates for selection procedure on the University website	9th June 2023
Selection Procedure**:** ▪ Written Aptitude Test ▪ Discipline wise proficiency – evaluation (Personal Interview)	12th July 2023
Announcement of the list of candidates offered the admission	17th July 2023
Last Date for paying fees	21st July 2023
Induction programme for admitted candidates	27th July 2023

8. CONTACT DETAILS

For Admission process related Inquiry:

Email ID: phdadmission@pdpu.ac.in

School	Admin Office	Faculty Coordinator | Contact No.
SPM	079 – 23275103	Dr. Kaushal Kishore | 079 – 23275126
SoET	079 – 23275069	Dr. Ranjan Pati | 079 – 23275306 Dr. Manish Sinha | 079 – 23275315
SoT	079 – 23275409	Dr. Rajesh Gujar | 079 – 23275451 Dr. Bhasha Vachharajani | 079 – 23275448
SLS	079 – 23275244	Dr. Vaibhav Shah | 079 – 23275236

For Research Area specific Academic Inquiry:

Sr. No.	Research Area	Professor In-charge	Email ID
1	Petroleum Engg.	Dr. Uttam Kumar Bhui	Uttam.Bhui@spt.pdpu.ac.in
2	Solar Energy	Dr. Indrajeet Mukhopadhyay	Indrajit.M@sse.pdpu.ac.in
3	Electrical Engg.	Dr. Praghnesh Bhatt	Praghnesh.Bhatt@sot.pdpu.ac.in
4	Mechanical Engg.	Dr. Vishvesh J Badheka	Vishvesh.Badheka@spt.pdpu.ac.in
5	Industrial Engg.	Dr. M B Kiran	MB.Kiran@sot.pdpu.ac.in
6	Civil Engg.	Dr. Tejas Thaker	Tejas.Thaker@sot.pdpu.ac.in
7	Chemical Engg.	Dr. Swapnil Dharaskar	Swapnil.Dharaskar@sot.pdpu.ac.in
8	Environmental Engg.	Dr. Anurag Kandya	Anurag.Kandya@sot.pdpu.ac.in
9	Chemistry	Dr. Rajib Bandyopadhyay	Rajib.Bandyopadhyay@sot.pdpu.ac.in
10	Physics	Dr. Satyam Shinde	Satyam.Shinde@sot.pdpu.ac.in
11	Mathematics	Dr. Poonam Mishra	Poonam.Mishra@sot.pdpu.ac.in
12	Computer Engg.	Dr. Samir Patel	Samir.Patel@sot.pdpu.ac.in
13	Info. & Comm. Tech.	Dr. Ganga Prasad Pandey	gangaprasad.pandey@sot.pdpu.ac.in
14	Electronics and Communication Engineering (ECE)		
15	Management	Dr. Kaushal Kishore	Kaushal.Kishore@spm.pdpu.ac.in
16	Liberal Studies	Dr. Vaibhav Shah	Vaibhav.Shah@sls.pdpu.ac.in

9. COMMUNICATIONS

All communications by the University for the Admission Process will be made through the website www.pdpu.ac.in. Candidates are advised to go through the University's website on regular basis for admission updates. The University will not be responsible for non-receipt of any communication, if any made additionally through email / SMS. No individual communication will be entertained.

The aspiring candidates, their parents and well-wishers are advised to check the website of University from time to time for all the latest information updates on the admission process.

These rules are subject to change due to several reasons. The change(s) in any of these rules including modalities of admission process shall be announce and made available on the official website of the University i.e. www.pdpu.ac.in. Candidates are advised and are responsible for checking and verifying the latest information on the modalities and specifies of the admission including, but limited to rules, processes criterion, schedule, fee, etc.

10. INTERPRETATION

These rules should be read as a whole, for the purpose of interpretation. In implementation of the provisions of these rules, if any difficulty or question arises as to the interpretation of any provision, the decision of the Director General of the University shall be final.

The candidates will be bound by the rules and regulations of the University as applicable during their course of study at the University. Disputes, if any, shall be subject to Ahmedabad jurisdiction only.

Form - I: Full Time SPONSORSHIP LETTER

(This is required to be on the letterhead of the sponsoring organization)

Reference No.:   Date:

To

The Director General

Pandit Deendayal Energy University

Raisan, Gandhinagar – 382 426

Sub: Sponsoring an Employee for Ph.D. Programme

Dear Sir,

We hereby sponsor the candidate Mr./Ms…………………………………………………… who is an employee in our organization on the position of …………………………………………………, for joining Ph. D. Programme in the research area of …………………………………………….... at your University as a full-time student.

We shall relieve him/her from his/her duties in the organization during the first three years of the Ph.D. Programme.

Signature and Seal of the Sponsoring Authority

Form – II: No Objection Certificate for External Part-Time Candidates

(This is required to be on the letter head of the organization)

Reference No.:   Date:

To

The Director General

Pandit Deendayal Energy University

Raisan, Gandhinagar – 382 426

<u>Sub: No Objection Certificate</u>

Dear Sir,

We do not have any objection if Mr./Ms…………………………………………………….….. an Employee at our organization on the position of ………………………………………………….…., is admitted to the Ph. D. Programme in the research area of ………………….…………………. at your University as a part-time student.

We shall grant him/her leave of absence to attend the programme related activities at the University as and when required.

Signature and Seal of the Employer

Form – III: No Objection Certificate for internal Part-Time Candidates

(This is required to be on the letter head of the organization)

<u>From</u>:

Name**:** ………………………………………...

Designation**:** ……………………………………….

Dept./Section**:** ………………………………………...

Date**:** ……………………………………………

Subject**:** An application for NoC

To

The Director General

Pandit Deendayal Energy University

Raisan, Gandhinagar – 382 426

Dear Sir,

I hereby wish to join an academic programme i.e. ………………. running at ……………………... on part time basis without sacrificing my duties and responsibilities assigned to me from time to time. I abide to follow the norms of the university in this regard.

I hereby request you to permit me to persue the above mentioned programme on part time basis and also to issue me the No Objection for it.

Yours Sincerely,

………………………….

Forwarding remarks with signature, of

1) HoD/Reporting Officer**:** ……………………………

2) School-Director**:** …………………………………

Approved/Not approved.

Director General/Head of Institution