

GHATIKIA, MAHALAXMI VIHAR, BHUBANESWAR - 751 029

Ref. No.: <u>1590</u>/ACD/OUTR Dated: <u>22.05.2025</u>

### Advertisement for Admission into Ph. D. Program 2025-26

Applications are invited from eligible candidates, for admission into Ph. D. Program of OUTR, Bhubaneswar for the Session 2025-26, in the following Schools / Departments, based on the area of specialization and category, as specified below. Interested candidates may apply online (in the specified Google Form only), within the specified period, as per guidelines indicated below.

#### 1. School / Department / Research Group and Area of Specialization:

SI.	School /	Research Group	Area of Specialization					
No.	Department	-	•					
	-	Chemistry	Synthesis of nano and double-perovskite materials of energy					
		(Materials Chemistry)	and environmental importance.					
		Humanities	Professional communication, Indian English Fiction, American Literature.					
	School of Basic	Mathematics (Probability and Statistics)	Number of zeros.					
01	Sciences and Humanities Mathematics (Numerical Analysis) Improper integral.							
		Mathematics (Optimization Technique)	Solution of LPP by operation research.					
		Physics (Condensed Matter Physics)	Experimental Condensed Matter Physics.					
	School of	Information Security						
02	Computer	Image Processing						
	Sciences	Distributed Computing and Data Science						
03	School of Electrical Sciences	Control & Signal	Classical Control, Control and Soft Computing Applications to Hybrid Energy Systems, Physiological System Modelling and Control, Grid Integration of Renewable Energy Sources, Control Systems, Robotics and Control, Modern Control, Nonlinear and Adaptive Control, Digital and Embedded Control, Process Control, Optimal and Predictive Control.					
		Energy System	Photovoltaic Systems, Wind turbine technology, Renewable energy storage, Grid integration of renewable, Lithium-ion and solid-state batteries, Hydrogen storage, Supercapacitors, Smart metering, Demand response, Microgrids and distributed energy systems, Load forecasting and grid stability, Energy pricing, Policy modelling, Market structures, Cost-benefit and investment analysis.					
		Power Electronics & Drives	Power Quality, Power Electronics, EV Drives, Al-ML, Modelling and Control of Electric Vehicles, Electric Motor Drives, Energy Storage and Management: Battery Hub control and Optimization, Electric drives and industrial motor control.					
		Power System Engineering	Power System Protection, Digital Protection, PMU, Microgrid Protection, FACTs Devices, Power Signal Processing, Integration of Renewable Sources, Application of AI and machine learning to Power System Protection, Power Quality, Economic load dispatch, Hydrothermal Scheduling, Load frequency control and AI applications to power systems.					



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	Cohool of	Instrumentation and Control	Instrumentation, Process Control, Renewable Control, Analog Instrumentation, Biomedical Engineering.
04	School of Electronic Sciences	Communication Engineering	Communication Engineering, Signal Processing, Wireless Network, Optical Communication, Image Processing.
	Ocicinocs	VLSI and Embedded System	VLSI, Semiconductor Device, Embedded System & IoT.
		Structural Analysis	Concrete structural elements, Durability of concrete, Sustainable Concrete.
05	School of Infrastructure and Planning	Water Resources Engineering	Reservoir Operation, Generation of Rule curve Flood Management, Hydraulics / Water Resources Engineering, Open Channel Flow Hydraulics, Surface Water Hydrology, Experimental Hydro dynamic Modelling, Urban Flood Modelling and Management.
	Cabaal at	Production	Production, Mechatronics, Robotics, Composite Materials.
06	School of Mechanical Sciences	Thermal	CFD, Conjugate Heat Transfer, Fluid and Thermal, Renewable Energy, I.C Engine & Alternative Fuel.
		Design	Robotics, AI, Machine Design, Composite Materials.
07	Department of Biotechnology	Computational Systems Biology and Biomedicine	Physiological Systems Modelling and Tissue Engineering.
		Advance Fabric Manufacturing Composites & Geotextiles	Technical Textiles, Textile reinforced composites, 3D Fabric, Fabric Manufacturing, Textile Testing & Evaluation, Nonwoven & Functional Textiles.
08	Department of Textile Engineering	Technical Textile	Clothing comfort, Protective textiles, Nonwovens, Textile Reinforced Composites, Filtration, Ultraviolet Radiation Protection by Woven Fabrics, Surface functionalization of textile materials, Design and manufacturing of Textile structural composites, Green composites, 3D weaving.
		Textile Chemical Processing	Applied colour science, Textile Chemical Processing, Nano- dyeing and finishing, Unconventional fibres, Image Processing, Medical textiles, IoT and Sensor applications in Textile, Objective measurement systems.

Candidates are required to satisfy minimum educational qualification requirements and the eligibility criteria along with other prescribed norms as per the Ph. D. Regulation 2023-24 (www.outr.ac.in) for admission into the Ph. D. program. Mere possession of minimum educational qualifications and / or eligibility criteria do not confirm admission into Ph. D. program. The decision of the authority in this regard is final and binding.

### 2. Program Details:

SI.	Category of Ph. D.	Eligibility Criteria / Other Requirements
No.		
1	Full Time Ph. D. (Regular)	Candidates without any employment and having desirable educational qualification, are eligible under this category. Such candidates are required to furnish an Undertaking (Form No. OUTR-PhD-03/5.3.a), during the admission into Ph. D. program.
2	Full Time Ph. D. (Sponsored)	Candidates engaged as a Project Fellow in OUTR and having desirable educational qualification, are eligible for admission under this category. Such candidates are required to furnish an Undertaking / NOC (Form No. OUTR-PhD-04/5.3b), during the admission into Ph. D. program.  OR  Candidates (Regular employee of academic / research organizations, external to OUTR), having desirable educational qualification, and with a minimum of two years' job experience in the current organization after passing the qualifying degree are eligible under this category. Such candidates are required to furnish an Undertaking / NOC (Form No. OUTR-PhD-04/5.3b), during the admission into Ph. D. program.



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3	Part Time Ph. D. (Sponsored)	Candidates (Regular employee / Project Fellow of academic / research organizations, external to OUTR), having desirable educational qualification, and with a minimum of two years' job experience in the current organization after passing the qualifying degree are eligible under this category. Such candidates are required to furnish an NOC (Form No. OUTR-PhD-05/5.3.c), during the admission into Ph. D. program.
4	Part Time Ph. D. (Self-Sponsored)	Candidates (Regular employee of OUTR or those who do not have any regular employment), having desirable educational qualification, are eligible under this category. Such candidates are required to furnish an Undertaking (Form No. OUTR-PhD-06/5.3.d), during the admission into Ph. D. program.
5	Executive Ph. D. (Sponsored)	Candidates (Regular employee of any organization other than academic / research organizations), having Master's degree, with a minimum of five years' job experience out of which at least two years' job experience in the current organization after passing the Master's degree, are eligible under this category. Such candidates are required to furnish an NOC (Form No. OUTR-PhD-07/5.3.c), during the admission into Ph. D. program.  OR  Candidates (Regular employee of any organization), having Bachelor's degree in Engineering / Technology, with a minimum of ten years' job experience out of which at least two years' job experience in the current organization after passing the Bachelor's degree in Engineering / Technology, are eligible under this category. Such candidates are required to furnish an NOC (Form No. OUTR-PhD-07/5.3.c), during the admission into Ph. D. program.

#### 3. Desirable Educational Qualification:

The minimum educational qualifications (Qualifying Degree) required for seeking admission to the Ph. D. Program under all Category in respect of different disciplines are given below. Preference will be given to candidates having qualified in UGC-NET (including JRF) / UGC-CSIR NET (including JRF) / SLET / GPAT / GATE / Inspire Fellow (DST, GoI) / CAT / NDF examinations.

- (i) **Qualifying Degree:** The requirement of the qualifying degree for admission into Ph. D. program under various Schools / Department is as follows.
  - The qualifying degree for admission into Ph. D. program in various Schools / Departments in Engineering / Technology is Masters' degree in Engineering / Technology.
  - The qualifying degree for admission into Ph. D. program under Computer Science and Applications is MCA / M. Sc. (Computer Science) / Masters' degree in Computer Science Engineering / Information Technology.
  - The qualifying degree for admission into Ph. D. program under School of Basic Sciences and Humanities is Master's degree in Physics / Chemistry / Mathematics / English.
- (ii) Candidates belonging to SC / ST / Differently-Abled category as notified by Government of Odisha from time to time shall possess a qualifying degree from an Institute / University recognized by UGC / AICTE / Central Government, with a minimum CGPA of 6.0 out of 10 or 55% of aggregate marks in respective discipline, for admission into Ph. D. program.
- (iii) All other Candidates shall possess a qualifying degree from an Institute / University recognized by UGC / AICTE / Central Government, with a minimum CGPA of 6.5 out of 10 or 60% of aggregate marks in respective discipline, for admission into Ph. D. program.



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### ODISHA UNIVERSITY OF TECHNOLOGY AND RESEARCH GHATIKIA, MAHALAXMI VIHAR, BHUBANESWAR - 751 029

(iv) Candidates applying for Executive Ph. D., with Bachelor's degree in Engineering / Technology (B. E. / B. Tech.) from an Institute / University recognized by UGC / AICTE / Central Government, shall possess a minimum CGPA of 6.5 out of 10 or 60% of aggregate marks in respective discipline, for admission into Ph. D. program under Executive Ph. D. category.

#### 4. Application Process:

- (A) Interested candidates may apply online, in the prescribed format, by filling the online application form in the link: <a href="https://tinyurl.com/OUTRPhDApplication2025">https://tinyurl.com/OUTRPhDApplication2025</a>, on or before 21.06.2025.
  - (i) On clicking the above link, the candidates are required to upload the following documents in the application form:
    - (a) Certificates and Grade Sheets /Mark Sheets of the 10<sup>th</sup>/Equivalent Examination.
    - (b) Certificates and Grade Sheets/Mark Sheets of the +2/Equivalent Examination.
    - (c) Certificates and Grade Sheets/Mark Sheets of Bachelor's Degree.
    - (d) Certificates and Grade Sheets/Mark Sheets of Master's Degree.
    - (e) Certificate of UGC-NET (including JRF) / UGC-CSIR NET (including JRF) / Inspire Fellow (Department of Science and Technology, GOI) / SLET / GPAT / GATE / CAT / NDF tests, if applicable.
    - (f) SC / ST Caste Certificate, if applicable.
    - (g) Differently able Certificate, if applicable.
  - (ii) Prior to the submission of the e-form (https://tinyurl.com/OUTRPhDApplication2025), the candidates applying for Ph. D. have to deposit a non-refundable Application Fee in online mode by scanning the QR Code provided in the e-form through any UPI / BHIM App, without which their application will not be submitted online and shall not be considered for scrutiny and admission into Ph. D. program 2025-26. The Application Fee to be deposited by candidates of various categories is as indicated below.
    - (a) Candidates belonging to SC / ST / Differently-abled category: **Rs.200/-** (Rupees Two Hundred only).
    - (b) Candidates belonging to all other categories: **Rs.500/-** (Rupees Five Hundred only).
    - (c) The candidates must enter the UTR Number, Date of Transaction, Name of the Bank from which the transaction is made and upload the Transaction slip, required for submitting the form.
- (B) The applications received from the candidates shall be processed by the Ph. D. Cell, OUTR, and the list shall be notified in the website (www.outr.ac.in), latest by 26.06.2025, indicating the candidates found suitable for online payment of Application Fee.

#### 5. Mode of Selection:

(i) The applications of the candidates (those who successfully pay the Application Fee) shall be scrutinized by the DRC of concerned Schools / Departments for preparing the following list, which will be published in the website (www.outr.ac.in).



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- List-1: Candidates eligible to appear in the OUTR-Ph.D. Entrance Test (OUTR-PET).
- List-2: Candidates eligible for exemption of OUTR-PET.
- (ii) The following category of candidates are exempted from appearing the OUTR-PET.
  - Candidates having qualified in the UGC-NET (including JRF) / UGC-CSIR NET (including JRF / Inspire Fellow (Department of Science and Technology, GoI) / SLET / GPAT / GATE / CAT / NDF tests, and having qualifying percentile scores in their respective validity periods.
  - Regular employees of OUTR.
- (iii) The candidates of List-1, are required to appear in the OUTR-PET, which will be conducted at OUTR Campus, in physical mode, on a computerized based system. The duration of OUTR-PET shall be of 90 minutes, consisting of 70 numbers of subject specific multiple-choice questions, each carrying 01 (one) mark. The correct answer will fetch 01 (one) mark and incorrect / unanswered question will fetch 0 (zero) mark. The schedule, venue, and the result sheet (List-3) of OUTR-PET shall be published in the website (www.outr.ac.in). The eligibility criteria, academic qualifications, selection criteria etc. will be governed as per the Ph. D. Regulations of OUTR.
- (iv) The candidates of List-2 and List-3, shall be called for appearing the Pre-Ph. D. admission interview, to be conducted in respective Schools / Departments of OUTR, in physical mode, for consideration of admission into the Ph. D. program, subject to fulfilment of other norms. These candidates are required to submit a set of self-attested certificates in the respective School / Department, during the Pre-Ph. D. admission interview, and details of admission process will be notified in the website (www.outr.ac.in).

#### 6. Important Dates:

Closing Date of Application

Notification of List of candidates eligible to appear OUTR-PET

Tentative Date of OUTR-PET

Notification of List of candidates to appear Pre-Ph. D. admission interview

Tentative Date of Pre-Ph. D. admission interview

Notification of List of candidates selected for Ph. D. admission

Date of Ph. D. Admission

- 11.06.2025

- 07.07.2025

- 09.07.2025

- 11.07.2025

- 14.07.2025

- 18.07.2025

N.B.: The University will provide a monthly fellowship of Rs.25,000/- (Rupees Twenty-five Thousand only) to Full Time (Regular) Scholars after First Year as per the current University provision. However, if a candidate is availing fellowship from any other source(s), he/she will not be eligible to obtain the fellowship from the University. Hostel accommodation will be provided as per availability.

Sd/-REGISTRAR

Copy to: Notice Board, All HOSs / HODs / Deans / CoE / CoF for information and necessary action.

Sd/-RGISTRAR



GHATIKIA, MAHALAXMI VIHAR, BHUBANESWAR - 751 029

Form No.: OUTR-PhD-03/5.3.a

### Undertaking for Candidates seeking Admission into Full Time Ph. D. (Regular)

I, Mr. / Ms. / Mrs					Son / Daughter of									
Vill P.0			P.O.	) Dist						provisionally				
selected	for	admission	into	Full	Time	Ph.	D.	(Regular)	in	the	School	/	Departi	ment of
						O	f OL	JTR, Bhubar	neswa	ar, do	o hereby	un un	dertake	to abide
the follo	wing p	oints during	the pe	eriod of	my res	earch	at O	UTR, Bhuba	inesw	ar.				
	emplo		or ad	missio	n into a			OUTR, Bhuba orogramme e					-	-
	. That, I shall not resort to any indisciplinary activities or any other acts of misconduct in the University premises or outside. In case, it is found that I am involved in such activities, or any other acts of misconduct in the University premises or outside, action as deemed to fit will be taken against me as per University rule.													
	3. That, I shall bring it to the notice of the appropriate authority (through the concerned HOS / HOD), in the event I apply for any scholarship / fellowship / stipend / assistantship from any organization during the period of my research work at OUTR, Bhubaneswar.													
I do here	I do hereby declare that the information provided above is true to the best of my knowledge and belief.													
Signatu	re of t	the Candida	te wit	h date										
Mobile N	lo.:													
E-mail II	D:													
								Signature o	f Par	ent /	Guardia	ın w	ith date	
								Mobile No.:						
								E-mail ID:						



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Form No.: OUTR-PhD-04/5.3.b

### <u>Undertaking / Consent / NOC for Candidates seeking Admission into Full Time Ph. D. (Sponsored)</u>

This is to certify that Mr. / Ms. / Mrs	Son / Daughter of
Vill	-
Dist provisionally selected for admission	
School / Department of	of OUTR, Bhubaneswar, is a
bonafide Employee / Project Fellow of	and is currently
working in this Organization / Institute since	
His / Her designation is	
This certificate is being issued on his / her request to enable hin	n / her to pursue Ph. D. in Odisha University
of Technology and Research, Bhubaneswar and is solely for his	/ her personal requirement.
We do not have any objection for his / her admission and pursuin	ng the Ph. D. Programme. The Study Leave
is sanctioned for the period of Three years, with full salary / without	out salary.
Signature of Principal Investigator of the Project	Signature of Head of the Organization
(Date and Seal):	(Date and Seal):
Name:	Name:
Designation:	Designation:
Name and Address of the Organization:	Name and Address of the Organization:



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Form No.: OUTR-PhD-05/5.3.c

### NOC for Candidates seeking Admission into Part Time Ph. D. (Sponsored)

This is to certify that Mr. / Ms. / Mrs	Son / Daughter of	
Vill	P.O	
Dist provisionally selected for a	admission into Part Time Ph. D. (Sponsored) in the	
School / Department of	of OUTR, Bhubaneswar, is a	
bonafide Employee / Project Fellow of	and is currently	
working in this Organization / Institute since		
His / Her designation is		
This certificate is being issued on his / her request to er of Technology and Research, Bhubaneswar and is solely	· · · · · · · · · · · · · · · · · · ·	
We do not have any objection for his / her admission and pursuing the Ph. D. Programme. The Study Leave is sanctioned (with full salary / without salary) in order to meet the residence requirements of Ph. D. program		
	Signature of Head of the Organization	
	(Date and Seal):	
	Name:	
	Designation:	
	Name and Address of the Organization:	

#### N.B.: PRESCRIBED RESIDENCE PERIOD (for Part Time Ph. D. / Executive Ph. D.)

- a) **Pre-Registration Residence Period:** A candidate under Part Time / Executive Ph. D. shall put in a minimum thirty days of residence in one or more visits to the School / Department in every semester during the coursework period, until he / she gets registered for the Ph. D. program. This residence requirement shall be utilized by the candidate for the purpose of coursework preparation and appearing the semester examinations, comprehensive examination, registration seminar etc.
- b) **Post-Registration Residence Period:** A research scholar under Part Time Ph. D. shall put in a minimum seven days of residence in one or more visits to the School / Department in every semester, after he / he gets registered for the Ph. D. program. However, a research scholar under Executive Ph. D. shall visit the concerned School / Department, as and when required by the DSC, after he / she gets registered for the Ph. D. program. This residence requirement shall be utilized by the candidate for the purpose of formulation / investigation of the research problem, review by the DSC till the submission of the final synopsis.



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Form No.: OUTR-PhD-06/5.3.d

### PART - A: Applicable for Regular Faculty Members of OUTR

### <u>Undertaking for Candidates seeking Admission into Part Time Ph. D. (Self-Sponsored)</u>

I, Mr. / Ms. / Mrs	Son / Daughter of
Vill P.O	Dist provisionally
selected for admission into Part Time Ph.	D. (Self-Sponsored) in the School / Department of
	of OUTR, Bhubaneswar, do hereby undertake that I shall
continue my research work in OUTR, Bhubanesy	war at my own expenses only and I shall not seek any kind
of financial support from the University for any ac	tivities / expenses related to my Ph. D. work.
Signature of the Candidate with date	
Mobile No.:	
E-mail ID:	



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Form No.: OUTR-PhD-06/5.3.d

### PART - B: Applicable for Regular Non-teaching Staff Members of OUTR

### Affidavit for Candidates seeking Admission into Part Time Ph. D. (Self-Sponsored)

I, Mr. /	Ms. / Mrs		Sc	on / Daughter of	
Vill		P.O		Dist	presently
selecte	ed for admission	on into Part Time P	h. D. (Self-Spo	)onsored) in the School / ar, do hereby undertake that	Department of
				with the following terms and	
I, Mr. /	Ms. / Mrs			do hereby undertake tha	t;
i) ii) iii) iv) v) vi) vii)	I shall carry out I shall shoulded University in deal of the I shall not accord reseat I shall not dem I shall not dem I shall not dem	at my research work with er all the responsibilities ue course of time. cept any employment / rch work. nand any financial suppo nand any financial benefi	out hampering me of the University assignment out out to pursue my reit after completing	y as assigned to me by the a side the University during the esearch work leading to Ph. I	authorities of the he period of my
				Signature of Deponent Name: Address: Telephone / Mobile:	
			Verification		
		nts of this affidavit are to been concealed or misst		my knowledge and no part	of the affidavit is
Verifie	d at (Place)	on this date	(Day	) of (Month)	(Year)
				Signature of Deponent	
Solem	nly affirmed and	signed in my presence	on this the	(Day) of (Montl	h) (Year)

#### OATH COMMISSIONER

(The affidavit form duly prepared in a non-judicial stamp paper of Rs.10/- and signed by 1st class Magistrate or Notary should be submitted by the deponent during admission)



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Form No.: OUTR-PhD-07/5.3.e

#### NOC for Candidates seeking Admission into Executive Ph. D. (Sponsored)

This is to certify that Mr. / Ms. / Mrs	Son / Daughter of
Vill	P.O
Dist provisionally selected for a	admission into Executive Ph. D. (Sponsored) in the
School / Department of	of OUTR, Bhubaneswar, is a
bonafide Employee / Project Fellow of	and is currently
working in this Organization since	
His / Her designation is	
This certificate is being issued on his / her request to e of Technology and Research, Bhubaneswar and is sole	· · · · · · · · · · · · · · · · · · ·
We do not have any objection for his / her admission ar is sanctioned (with full salary / without salary) in order to	, ,
	Signature of Head of the Organization
	(Date and Seal):
	Name:
	Designation:
	Name and Address of the Organization:

### N.B.: PRESCRIBED RESIDENCE PERIOD (for Part Time Ph. D. / Executive Ph. D.)

- a) **Pre-Registration Residence Period:** A candidate under Part Time / Executive Ph. D. shall put in a minimum thirty days of residence in one or more visits to the School / Department in every semester during the coursework period, until he / she gets registered for the Ph. D. program. This residence requirement shall be utilized by the candidate for the purpose of coursework preparation and appearing the semester examinations, comprehensive examination, registration seminar etc.
- b) **Post-Registration Residence Period:** A research scholar under Part Time Ph. D. shall put in a minimum seven days of residence in one or more visits to the School / Department in every semester, after he / he gets registered for the Ph. D. program. However, a research scholar under Executive Ph. D. shall visit the concerned School / Department, as and when required by the DSC, after he / she gets registered for the Ph. D. program. This residence requirement shall be utilized by the candidate for the purpose of formulation / investigation of the research problem, review by the DSC till the submission of the final synopsis.