

National Institute of Technology Raipur



Information Bulletin Ph.D. Admission 2023

G E Road, Raipur. 492010, CG India
Phone: 0771-2252700, Fax: 0771-2253104
E-mail: registrar@nitrr.ac.in
Website: www.nitrr.ac.in

This page is intentionally left blank

Content

| | |
|--|-------|
| ❖ Advertisement | 1 |
| ❖ Eligibility and other conditions | 3-7 |
| ▪ Eligibility for Ph.D. Admissions | 3 |
| ✓ Educational Qualifications | 3 |
| ✓ Other conditions | 4 |
| ▪ Selection Process | 5 |
| ▪ Reservation and Scholarship Details | 6 |
| ▪ Date of Written Examination and Interview | 7 |
| ▪ Document Verification | 7 |
| ❖ Annexure 1; Broad research area offered for Ph.D. 2023 admission | 9-12 |
| ❖ Annexure 2; Certificate formats | 13-26 |
| ❖ Annexure 3; Vacancy details for Full time candidates with Institute fellowship | 27 |
| ❖ Annexure 4; e-Mail addresses of respective departments (For submitting the application) | 29 |

This page is intentionally left blank



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर National Institute of Technology Raipur

(An Institute of National Importance)

G E Road, Raipur. 492010, CG India

Phone: 0771-2252700, Fax: 0771-2253104

Website: www.nitr.ac.in

Date: 26.04.2023

Ph. D. admissions for academic year 2023-2024

Applications are invited in e-mail (to respective departments, as given in information bulletin) for Ph.D. Admissions in (Full time/Sponsored/Self-Financed/Part time categories) for the Academic Session 2023-2024 in Department of Applied Geology, Architecture, Bio Medical Engineering, Bio-Technology, Chemical Engineering, Chemistry, Civil Engineering, Computer Applications (MCA), Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Humanities and Social Sciences, Information Technology, Mathematics, Mechanical Engineering, Metallurgical and Materials Engineering, Mining Engineering and Physics. The details of specialization and research domains offered can be referred from the Institute website: www.nitr.ac.in.

How to Apply:

The relevant information is available in the **detailed information bulletin** and the candidates are required to download and fill the digital application form and deposit the requisite application fee* online.

The digitally filled application form (pdf), along with soft copy of recent passport sized photograph and single (i.e., merged) pdf file of all relevant documents, as mentioned in the form, should be e-mailed directly to the respective departments wherein the candidate wishes to apply. (The email addresses of respective departments, where the complete applications are to be e-mailed, are provided in the detailed information bulletin).

Last date of application is: 17.05.2023

****Application Fee:***

Rs. 500/- for OC, OBC and EWS category applicant. For SC/ST/PH candidates, fee will be Rs. 250/- only.

Note: The list of applications received within the stipulated date and time, schedule mentioning the dates of written exam, declaration of list of eligible candidates for interview, dates of online interview and the list of selected and waitlisted candidates shall be displayed in the Institute website www.nitr.ac.in and no intimation will be sent to the candidates individually. The candidates are advised to visit Institute website regularly for updates.

**Registrar
NIT Raipur**

This page is intentionally left blank



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर

National Institute of Technology Raipur

(An Institute of National Importance)

G E Road, Raipur. 492010, CG India

Phone: 0771-2252700, Fax: 0771-2253104

E-mail: registrar@nitrr.ac.in

Website: www.nitrr.ac.in

Date: 26.04.2023

Ph. D. Admission for Academic Year 2023-2024

Applications are invited in e-mail (to respective departments, as given in information bulletin) for Ph.D. Admissions in (Full time/Sponsored/Self-Financed/Part time categories) for the Academic Session 2023-2024 in Department of Applied Geology, Architecture, Bio Medical Engineering, Bio-Technology, Chemical Engineering, Chemistry, Civil Engineering, Computer Application (MCA), Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Humanities and Social Sciences, Information Technology, Mathematics, Mechanical Engineering, Metallurgical and Materials Engineering, Mining Engineering and Physics with specialization and offered area of research as mentioned in Annexure I.

Number of seats available department-wise under Full-Time Fellowship/ Scholarship is given in annexure III and Sponsored/Self-Financed/Part time seats are in addition to these depending upon the suitability of the candidate and availability of specialization and Supervisor in the department.

1. Eligibility for Ph.D. Admissions

1.1 Educational Qualifications:

A Master's degree in Engineering/Technology/Science/Management/ Humanities and Social Science, Architecture/ Planning or any other equivalent qualification recognized by the institute.

Minimum requirement of percentage/CGPA in qualifying degree:

Minimum 60% marks or 6.5/10 CGPA/CPI at Master's degree is essential for admission in Ph.D. program of the Institute. However, a relaxation of 5% marks from 60% to 55% and from 6.5/10 CPI (CGPA) to 6.0/10 CPI (CGPA) may be allowed for those candidates belonging to SC, ST, OBC (Non-Creamy Layer), Differently Abled and those who had obtained their master's degree prior to 19.09.1991. Candidates who are appearing in qualifying examination as stated above are also eligible to apply. However, they have to produce a certificate of passing the qualifying examination on the day of interview.

The concerned department will judge suitability of the candidate for pursuing Ph.D. in particular discipline based on his/her specialization in Master's level.

Decision of the Institute shall be final in this regard.

1.2 Other Conditions

There is no age limit for the applicant.

Prospective candidate should apply for **full time/sponsored/self-financed/part time candidature** on the prescribed digital form on or before due date and time in the online application portal. **The choice of candidature, once exercised, will not be changed.** The Ph.D. Ordinance of NIT Raipur defines the student status as per Regulation R.0 (Page no. 5) and is partly reproduced here (for the sake of clarity for the prospective candidates before they apply for full time/sponsored/self-financed/part time candidature) and is as follows:

R.0.1 Full Time Research Candidate

R.0.1.1 Institute Research Student/Candidate: getting institutional fellowship/scholarship.

R.0.1.2 Government/Semi-Government Fellowship awardee: by QIP/ CSIR/ DST/ UGC/ DRDO/AICTE/DAE etc.

R.0.1.3 Sponsored Students/Candidates: being an employee of a public sector undertaking, Government department, Defense organization, Research and development organization, a private industry/institution (approved by the concerned faculty) or an educational institution (sponsored by his/her employee with their normal salary and allowances and are relieved for a period of not less than three years for pursuing Ph.D. Program). The candidates under sponsored category should have minimum working experience of two years in the relevant field.

Candidates selected under this category have to submit Form I (Page 27 of Ph.D. Ordinance and also made available with the advertisement, Annexure II a).

R.0.1.4 Sponsored from industries under bilateral agreement with the institute.

Candidates selected under this category have to submit Form I (Page 27 of Ph.D. Ordinance and also made available with the advertisement, Annexure II a).

R.0.1.5 Self-financed (Indian/Foreign)/Study leave/college teacher.

Indian: This category refers to the persons with experience and good academic record to join the doctoral program in their personal capacity.

Foreign: These students are admitted through embassy of the foreign government after getting approval from the ministry of external affairs and NOC from Ministry of Human Resource Development or Department of Education, Government of India or admitted under MoU with NIT Raipur.

R.0.2 Part Time Research Candidate

R.0.2.1 Institute Faculty/ Staff: those who are permanent employees of the Institute.

R.0.2.2 Project Staff: those who are working on various projects undertaken by the institute where Ph.D. registration is not a requirement but are admitted to Ph.D. program.

R.0.2.3 Research Scholar of other institution/organization: working on a part-time basis shall normally carry out research work at NIT Raipur under the supervision of a guide and not co-guide at NIT Raipur.

R.0.2.4 External Candidates: Who are working in other public/private sector organizations or research laboratories having R&D facilities and will normally carry out part or all of one's research work there only under supervision of a co-guide employed in the same organization and a guide/Supervisor at NIT Raipur.

Candidates selected under this category will have to submit Form III (Page 29 of Ph.D. Ordinance and also made available with the advertisement, Annexure II b).

Candidates applying under Part-time category will have to produce NOC from their employer (in the format of Form II given at page 28 of Ph.D. ordinance and also made available with the advertisement, Annexure II c). During initial registration, in case of non-availability of NOC or delay in submission of NOC, the candidate will have to submit an undertaking to produce the NOC as per the given format with in a stipulated date declared by the Office of Dean Academics for such cases. Till the stipulated date, the registration of the candidate will be treated conditional and may be cancelled if the candidate fails to submit his/her NOC as per the given format by the stipulated date or such other date as decided by the Institute.

Candidates are advised to sincerely refer the Institute's Ph.D. ordinance available in the institute website to ensure their eligibility for full time/sponsored/self-financed/part time category. ([http://nitrr.ac.in/downloads/ordinance/to be uploaded PhD%20ordinance%20 wef 1609 2019.pdf](http://nitrr.ac.in/downloads/ordinance/to_be_uploaded_PhD%20ordinance%20wef_1609_2019.pdf)).

2. Selection Process

2.1 Selection of candidates for Ph.D. program will be made on the basis of candidate's performance in the objective type (MCQ based) examination and their performance in the Interview.

2.2 The minimum eligibility criteria to appear in the interview will be:

2.2.1 Cut-off Marks:

- a) For OC/OBC/EWS, a cut-off mark is set at 50% of the maximum marks scored in the written examination of a department.
- b) For SC/ST/PH, a cut-off mark is set at 45% of the maximum marks scored in the written examination of a department.

Candidates who have scored above mentioned minimum marks (or more) shall only be eligible to be called for the interview.

2.2.2 The Institute reserves the right to restrict the number of candidates (found eligible as per 2.2.21 above) to appear in the online interview as per the number of seats available category-wise in each department vis-à-vis performance of the candidate in the written examination.

2.2.3 The candidates, thus found eligible (as per point 2.2.1 and 2.2.2 mentioned above), will have to appear in a personal interview in the respective department.

2.2.4 The category-wise merit list depending on the performance of candidates in written examination and interview for each department will, then, be published.

2.3 Eligible candidates, who are regular faculty and staff member of NIT Raipur having successfully completed their probation period, need not appear in written entrance examination. Further, UGC/CSIR (JRF)/NET/Teacher fellowship holder/ M Phil qualified candidates need not appear in written entrance examination. Therefore, all such candidates will be called directly for interview subject to their eligibility. Other than these, remaining candidates who are found eligible after the scrutiny of the applications will have to appear in a written entrance examination.

However, Institute fellowship/scholarship will be awarded only to those eligible candidates who have qualified in written entrance examination as well as the interview.

3. Reservation and Scholarship Details

Reservation for SC/ST/OBC/EWS and differently-abled persons will be followed as per GoI norms for Institute scholar with Full-Time Fellowship/Scholarship (as mentioned in Section 1.2, subsection, R.0.1.1 of Institute PhD Ordinance). **The respective candidates are instructed to submit their certificates as per the formats provided in Annexure II (d-j). The OBC (NCL) and EWS certificate must have been issued after 01.04.2023.**

If no PH (PWD) candidates applies or no PH (PWD) candidate qualifies against the available PH vacancies then these seats will be converted to respective category.

Number of seats for Sponsored/Self-Financed/Part time candidates are not fixed. Hence preference will be given to OBC/SC/ST/PH candidates over OC (General) candidates, in the respective category, if all other things remain the same.

3.1 Scholarship

Details of the department-wise vacancies, only under the category of full-time research scholar with Institute Fellowship/Scholarship as per regulation **R.0.1.1 of Ph.D. ordinance**, is provided in Annexure III. The award of scholarship/fellowship to full time (as per regulation R.0.1.1 of Ph.D.

ordinance) will be made only to those eligible candidates who have qualified in written entrance examination as well as the interview and will be applicable as per GoI/MHRD norms.

4 Date of Written Examination and Interview

The list of candidates eligible to appear in the written entrance examination, dates of written entrance examination, list of shortlisted candidates for online interviews, dates of online interviews and final result will be displayed in the institute website **www.nitr.ac.in** and no intimation will be sent to the candidates by post or individual mail. The candidates are advised to visit Institute website regularly.

5 Document Verification

The candidates, shortlisted to appear in the online interviews, will have to submit an undertaking (Annexure IV) before appearing in the interview stating that “If any information furnished in this application is proved wrong at any stage, then the application/candidature may be rejected and the admission, if offered/granted may be cancelled and the sole responsibility of the same will be of that of the Candidate”.

In case, a candidate’s claim cannot be verified due to lack of proofs (original documents) or otherwise, his/her candidature will be terminated and such candidates will not be allowed to take part in further process.

This page is intentionally left blank



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.) Website: - www.nitr.ac.in

Research expertise available and department-wise area of research offered

Session 2023-24

| S. No. | Department | Broad Research Area offered |
|--------|------------------------|---|
| 01 | Applied Geology | Structural Geology, Petrology and Geochemistry, Hydrogeology, Remote Sensing and GIS, Hyperspectral remote sensing application in mineral exploration, subsidence monitoring of coal mines using micro wave remote sensing, Oil-spill Detection using Remote Sensing and Lunar Mapping using Chandrayaan data. |
| 02 | Architecture | Smart city, Eco city, Super tall buildings, Energy efficient housing, Indoor air quality, Industrialized mass housing, Energy efficient & solar passive environmental planning & management, building materials & construction. |
| 03 | Biomedical Engineering | Computational neuroscience, Medical Image Processing, Machine Learning, Deep Learning, Health information, Biomedical signal processing. Tissue engineering, Microfluidics, Cognitive Neuroscience. Medical devices, Machine learning, Tomography, Inverse problem. Biomechanics. Medical Instrumentation, Experimental biomechanics, Bio-photonics, medical device development. |
| 04 | Biotechnology | Plasmonic Biomaterials, Bioplastic materials, Sustainable biomaterial, Microbiology, Drug development, Drug design, Environmental remediation, Bioinformatics, Drug delivery, antimicrobial resistance, Nanomaterials for environmental application, Microbial electrochemical technology, Antibiofilm study, Bio-Nanotechnology & Biosensors. |
| 05 | Chemistry | Analysis of Nuclear Fuel Materials, Luminescence, Biosorption, Corrosion, DNA Binding & drug design, Environment Science Synthesis. Characterization and application of Nanoparticles, carbon nano dots and grapheme dots. Nano-materials & Nano Composites. Environmental & Analytical Chemistry, Nano Science, Micro-extraction of drug [Antidepressant]. Nanomaterials, Polymer Synthesis Catalysis, Conducting Polymers. Heterocyclic Compounds, Medicinal Chemistry, Organic Synthesis. Crystal Engineering, Hydrogen bonding, Coordination polymer, Metal organic framework Carbon dot and Applications, Inorganic Chemistry, Lanthanide Composite Materials, Optoelectronic Materials. |
| 06 | Chemical Engineering | Nano Technology, Electrochemistry, Membrane Technology, advanced oxidation Processes, Environmental Engineering, Reaction Engineering, Sensors, Catalysis, Industrial effluent treatment, Food science engineering, Process intensification, CFD, Modeling, Vapor-Liquid equilibrium studies, Nano-composite., Reactive Extraction, Biotechnology and Bioprocess engineering, Surface engineering, Renewable energy. |



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर

NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.), Website: - www.nitr.ac.in

| | | |
|----|--------------------------------|---|
| 07 | Civil Engineering | Environmental engineering, Air pollution monitoring, and modeling, water and waste water treatment, pollution control, waste water treatment, Structural engineering, Earthquake resistant design, Hazard analysis, soil structural interaction, Performance evaluation of Pavements, manufacturing, of aggregates, water resources planning & management, Hydro-informatics & climate change, Geotechnical & Geo environmental engineering, concrete technology, Pavement analysis & design, regional transport planning, RS & GIS applications, UAV Applications with AI, DL, ML and IoT |
| 08 | Computer Application (MCA) | Parallel Processing, AI & Machine Learning, SDN. Cloud Computing, Internet of Things, Web Engineering. Internet of Things, Cloud Computing, Decision Support. Information Security, Cyber Security, Blockchain Technology, IoT Security, MANET, Wireless Sensor Network. Swarm Intelligence Techniques, Evolutionary Algorithm and other metaheuristic techniques for combinatorial optimization problems. Information Security, Multimedia Security, Cyber Physical Systems, Cyber Security, Adversarial Machine Learning. Parallel and Distributed Computing, Wireless Sensor Network, Surveillance with drones, Area Coverage Problem, Distributed Algorithm Wireless Network, Machine Learning, Deep Learning and Computer Vision. |
| 09 | Computer Science & Engineering | Data analytics, Distributed computing & communication Networks, AI & Machine learning based cloud, edge, fog & IoT computing, Deep learning, software engineering, Image processing, Blockchain Technology, Security in cloud computing, Intrusion detection. |
| 10 | Electrical Engineering | Biomedical Instrumentation, Medical Signal and Image Processing, Deep Learning Application in Power System, Speech Signal Processing, Biometrics P.Q., P.E., P.S. & Machine. Power system: smart Grid, micro grid, Energy management, cyber security, Power Electronics. V. var watt Control etc. Protection of micro grid/smart grid. FACTS, HVDC/MTDC transmission system, AI applications in power system. Model order reduction, Interval system controller designing. Power electronics its application to renewable sources electric drives. Micro grid Protection, Smart Grid, Application of Signal Processing Techniques for Power System Protection. Pulse with modulation techniques, multilevel inverter, DC-DC converter, Electric drives, Renewable Energy. Power Electronics and its application to power quality, renewable energy sources, grid connected inverters, Electric drives & IoT applications. High voltage Engineering smart grid, micro grid, Renewable Energy system and Power system Power Electronics converter for EV & Renewable Energy Applications. Multi-level inverter, P.E. application in Renewable energy, DC-DC converter, Electrical Drives. Power converter for EV and PV application Power System Protection, micro, smart grid, Application of AI techniques for Power System protection. Power Converters, front end converters, Energy storage. Biomedical Instrumentation/Imaging Optoelectronics. |



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.) Website: - www.nitr.ac.in

| | | |
|-----|---|---|
| 11. | Electronics & Communication Engineering | System design, image processing, computer & communication networks, distributed processing, Semiconductor Devices and VLSI, Wireless Sensor Network, Artificial Intelligence, Application of Machine Learning in internet of things (IOT), Cryptography, High-performance Architectures, Hardware Security, FPGA-based Designs, Free Space Optics, Fiber Optics, Non-linear Optics, IsOWC system design, Optical Signal Processing, Machine learning, Deep learning for wireless communication, Signal processing, Computer Vision, Multimedia Security, Signal Processing, Metaheuristic Optimization, Soft Computing, System Identification, Filter Design, Antenna & Microwave Engineering, Microstrip & Dielectric Resonator Antennas, Silicon and thin film solar cells, semiconductor optoelectronic devices. MEMS and Nano-electronic Devices, Wideband semiconductor devices (GaN/SiC). |
| 12. | Humanities | Feminism, American Literature, British Literature, Indian Literature, English Language Teaching, Indian writing in English, Critical Theory, Marketing (Advertising, Consumer Behavior, Sustainable consumption), Retail Management, Entrepreneurial Innovation, Psycho-social Management Areas/fields. |
| 13. | Information Technology | Data Science, Computer Network and wireless communication, Software engineering, Computer graphics, Security & Cryptography, Data mining and Machine learning, Distributed systems and Algorithms, Image and Video processing, Computer vision, Bioinformatics, Block chain, Internet of things, Big data processing, Cloud / Fog computing, Energy Informatics, Artificial Intelligence, Computational Intelligence techniques, Affective computing, Medical Imaging, Natural language processing, Biometrics, speech processing, Human computer interaction Visual surveillance, Medical image analysis, etc. |
| 14. | Mathematics | Algebra, Rough and Fuzzy Set Theory, Mathematical Biosciences, Integral Transforms, Wavelets, Mathematical Modelling, Disease Dynamics, Nonlinear Dynamics, Linear Algebra, Queueing Theory, Inventory systems, Statics, Mathematical Modelling, Mathematical Ecology, Mathematical Biology, Eco-epidemiological Modelling, Disease Dynamics, Nonlinear Dynamics and Chaos Theory, Differential Equations, Fluid Dynamics, Mathematical Ecology, Mathematical Biology, Cryptography, Computational Statistics and Data science, Mathematical Physiology, Cardiology, Mitochondrial Bioenergetics, ROS production. |
| 15. | Mechanical Engineering | Thermal engineering, Computational Fluid Dynamics, Heat transfer and Vibration analysis, Structural Mechanics, Solid mechanics for composite structure, Computational mechanics, Smart material, Tribology, Production Engineering, Welding Technology, Industrial engineering, Supply chain management, Production and operation management, Robotics, Biomechanics, etc. |



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर
NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.) Website: - www.nitr.ac.in

| | | |
|-----|---|---|
| 16. | Metallurgical and Materials Engineering | Additive manufacturing, metal foam, liquid metal engineering, aluminum alloy casting, steel microstructure & digital metallography, thin film, sensor, FSW, Coating, Composite materials, lead free solder alloy, corrosion of metals, and alloys, Heat and alloy design, centrifugal castings, welding and joining of alloys, functionally graded materials. |
| 17. | Mining Engineering | Rock Excavation, Blasting, Slope Stability, Acid Mine Drainage, Mine Environment, Mine Safety Engineering, Strata Control, Mine Ventilation, Mine Environment, GIS, Remote Sensing |
| 18. | Physics | Materials Science (Core shell QDS) |

INCOME & ASSEST CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTIONS

Government of

(Name & Address of the authority issuing the certificate)

[This certificate MUST have been issued on or after 1st April 2023]

Certificate No. _____

Date: _____

VALID FOR THE YEAR _____

1. This is to certify that Shri/Smt./Kumari _____, son/daughter/wife of _____ permanent resident of _____, Village/Street _____ Post Office _____ District in the State/Union Territory _____ Pin Code _____ whose photograph is attested below belongs to Economically Weaker Sections, since the gross annual income* of his/her family is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year _____. His/her family does not own or possess any of the following assets***:**

- I. 5 acres of agricultural land and above;
- II. Residential flat of 1000 sq. ft. and above;
- III. Residential plot of 100 sq. yards and above in notified municipalities;
- IV. Residential plot of 200 sq. yards and above in. areas other than the notified municipalities.

2. Shri/Smt./Kumari _____ belongs to the _____ caste which is not recognized as a Scheduled Caste, Scheduled Tribe and Other Backward Classes (Central List)s

Signature with seal of Office _____

Name _____

Designation _____

Recent Passport size
attested photograph
of the applicant

The income and assets of the families as mentioned would be required to be certified by an officer not below the rank of Tehsildar in the States/UTs.

Note:

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

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

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

FORMAT FOR SC/ST CERTIFICATE

A candidate who claims to belong to one of the Scheduled Castes or the Scheduled Tribes should submit in support of his claim an attested/self-certified copy of a certificate in the form given below, from the District Officer or the Sub-Divisional Officer or any other officer as indicated below of the District in which his parents (or surviving parent) ordinarily reside who has been designated by the State Government concerned as competent to issue such a certificate. If both his parents are dead, the officer signing the certificate should be of the district in which the candidate himself ordinarily resides otherwise than for the purpose of his own education. Wherever photograph is an integral part of the certificate, NIT Raipur would accept only attested/self-certified photocopies of such certificates and not any other copy.

Candidates from Maharashtra state must also produce the caste-validity certificate from competent authority.

This is to certify that Shri/Shrimati/Kumari* _____

_____ son/daughter of _____

_____ of village/town/* _____ in

District/Division* _____ of the State/Union Territory* _____

belongs to the _____ Caste/Tribe* which is recognized as a Scheduled Castes

[SC]*

/ Scheduled Tribes [ST]* under:

The Constitution (Scheduled Castes) Order, 1950

The Constitution (Scheduled Tribes) Order, 1950

The Constitution (Scheduled Castes) Union Territories Order, 1951

The Constitution (Scheduled Tribes) Union Territories Order, 1951

As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification) Order, 1956, the Bombay Reorganization Act, 1960 & the Punjab Reorganization Act, 1966, the State of Himachal Pradesh Act 1970, the North-Eastern Area (Reorganization) Act, 1971 and the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976. [%]

The Constitution (Jammu & Kashmir) Scheduled Castes Order, 1956. The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959 as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment Act), 1976. The Constitution (Dadra and Nagar Haveli) Scheduled Castes Order, 1962. The Constitution (Dadra and Nagar Haveli) Scheduled Tribes Order 1962**. The Constitution (Pondicherry) Scheduled Castes Order, 1964**. The Constitution (Scheduled Tribes) (Uttar Pradesh) Order, 1967**. The Constitution (Goa, Daman & Diu) Scheduled Castes Order, 1968**. The Constitution (Goa, Daman & Diu) Scheduled Tribes Order, 1968**. The Constitution (Nagaland) Scheduled Tribes Order, 1970**. The Constitution (Sikkim) Scheduled Castes Order, 1978**. [%]

The Constitution (Sikkim) Scheduled Tribes Order, 1978**. The Constitution (Jammu & Kashmir) Scheduled Tribes Order 1989**. The Constitution (SC) Orders (Amendment) Act, 1990**. The Constitution (ST) Orders (Amendment) Ordinance, 1991**. The Constitution (ST) Orders (Second Amendment) Act, 1991**. The Constitution (ST) orders (Amendment) Ordinance, 1996. The Scheduled Caste and Scheduled Tribe Orders (Amendment) Act. 2002. The Constitution (Scheduled Caste) Orders (Amendment) Act, 2002. The Constitution (Scheduled Caste and Scheduled Tribe) Orders (Amendment) Act, 2002. The Constitution (Scheduled Caste) Order (Amendment) Act, 2007. [%]

2. Applicable in the case of Scheduled Castes, Scheduled Tribes persons who have migrated from one State/Union Territory Administration.

This certificate is issued on the basis of the Scheduled Castes / Scheduled Tribes certificate issued to Shri/Shrimati _____, Father/Mother of Shri/Srimati/Kumari* _____ of village/town* _____ in the District/Division* _____ of the State/Union Territory* _____, who belong to the _____ Caste/Tribe* which is recognized as a Scheduled Caste* / Scheduled Tribe* in the State/Union Territory* issued by the _____ dated _____, %

3. Shri/Shrimati/Kumari* _____ and/or* his/her* family ordinarily reside(s) in the village/town* _____ of _____ District/Division* of the State/Union Territory of _____.

Place _____

Signature _____

Date _____

Designation _____

(with seal of office)

*** Please delete the words which are not applicable**

**** Please quote specific presidential order**

% please delete the paragraph which is not applicable.

^ List of authorities empowered to issue Schedule Caste / Schedule Tribe Certificates:

- 1) District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st Class Stipendiary Magistrate / Sub-Divisional Magistrate / Extra-Assistant Commissioner / Taluka Magistrate / Executive Magistrate.
- 2) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
- 3) Revenue Officers not below the rank of Tehsildar.
- 4) Sub-Divisional Officers of the area where the candidate and/or his family normally resides.

NOTES:

- 1) The term ordinarily reside(s) used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

DISABILITY CERTIFICATE FORMAT - II

{In cases of amputation or complete permanent paralysis of limbs and in cases of blindness}

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

No. - _____

Date - ____/____/____

Signature/LTI/RTI of the Candidate

Passport size
photograph
of the
candidate

This is to certify that I have carefully examined Shri/Smt./Kum. _____
son/wife/daughter of Shri _____ Date of Birth ____/____/____
[Age - _____ years], male/female, Registration No. _____ permanent resident of
House No. - _____, Ward/Village/Street _____ Post Office
_____ District _____ State _____, whose
photograph is affixed above, and am satisfied that

1. he/she is a case of (Please tick as applicable):
 - a. locomotor disability
 - b. blindness
2. The diagnosis in his/her case is _____.
3. He / She has _____ % (in figure) _____ percent (in words)
permanent physical impairment/blindness in relation to his/her _____
(part of body) as per guidelines (to be specified).
4. The applicant has submitted the following document as proof of residence:-

| Nature of Document | Date of Issue | Details of authority issuing the certificate |
|--------------------|---------------|--|
| | | |

Official Seal:

[Authorized Signatory of notified Medical Authority] Name:

DISABILITY CERTIFICATE FORMAT - III

{In cases of multiple disabilities}

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

No. - _____

Date - ____/____/____

Signature/LTI/RTI of the Candidate

Passport size
photograph
of the
candidate

This is to certify that I have carefully examined Shri/Smt./Kum. _____,

son/wife/daughter of Shri _____ Date of Birth ____/____/____

[Age - _____ years], male/female, Registration No. _____ permanent resident of

House No. - _____, Ward/Village/Street _____ Post Office

_____ District _____ State _____, whose

photograph is affixed above, and am satisfied that

1. He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/ disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

| S. No. | Disability | Affected Part of Body | Diagnosis | Permanent physical impairment/mental disability (in %) |
|--------|----------------------|-----------------------|-----------|--|
| 1 | Locomotor disability | @ | | |
| 2 | Low vision | # | | |
| 3 | Blindness | Both Eyes | | |
| 4 | Hearing impairment | £ | | |
| 5 | Mental retardation | X | | |
| 6 | Mental-illness | X | | |

Contd.

2. In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures: _____%

In words: _____percent

3. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

4. Reassessment of disability is:

(i) Not Necessary [or]

(ii) Is recommended/after _____years _____months, and therefore this certificate shall be valid till (DD/MM/YY)_____.

@ - e.g. Left/Right/both arms/legs

- e.g. single eye/both eyes

£ - e.g. Left/Right/both ears

5. The applicant has submitted the following document as proof of residence:

| Nature of Document | Date of Issue | Details of authority issuing the certificate |
|--------------------|---------------|--|
| | | |

6. Signature and seal of the Medical Authority:

| | | |
|--------------------------------|-------------------------------|---|
| | | |
| Name and Seal of Member | Name of Seal of Member | Name and Seal of the Chairperson |

DISABILITY CERTIFICATE FORMAT - IV

{In cases of any other case not covered in Format – II & III}

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

No. - _____

Date - ____/____/____

Signature/LTI/RTI of the Candidate

Passport size
photograph
of the
candidate

This is to certify that I have carefully examined Shri/Smt./Kum. _____,

son/wife/daughter of Shri _____ Date of Birth ____/____/____

[Age - _____ years], male/female, Registration No. _____ permanent resident of

House No. - _____, Ward/Village/Street _____ Post Office

_____ District _____ State _____, whose

photograph is affixed above, and am satisfied that

1. He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/ disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

| S. No. | Disability | Affected Part of Body | Diagnosis | Permanent physical impairment/mental disability (in %) |
|--------|----------------------|-----------------------|-----------|--|
| 1 | Locomotor disability | @ | | |
| 2 | Low vision | # | | |
| 3 | Blindness | Both Eyes | | |
| 4 | Hearing impairment | £ | | |
| 5 | Mental retardation | X | | |
| 6 | Mental-illness | X | | |

Contd.

2. In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures: _____%

In words: _____percent

3. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

4. Reassessment of disability is:

(i) Not Necessary [or]

(ii) Is recommended/after _____years _____months, and therefore this certificate shall be valid till (DD/MM/YY)_____.

@ - e.g. Left/Right/both arms/legs

- e.g. single eye/both eyes

£ - e.g. Left/Right/both ears

5. The applicant has submitted the following document as proof of residence:

| Nature of Document | Date of Issue | Details of authority issuing the certificate |
|--------------------|---------------|--|
| | | |

Official Seal:

[Authorized Signatory of notified Medical Authority*]

Name: _____

* In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District. Note: The principal rules were published in the Gazette of India vide notification number S.O. 908(E), dated the 31st December, 1996.

Countersigned

Official Seal:

[CMO/Medical Superintendent/Head of Govt. Hospital]

Name: _____

^ Countersignature and seal of the CMO/Medical Superintendent/Head of Government Hospital is essential in case the certificate is issued by a medical authority who is not a government servant.

FORMAT FOR OBC [NCL] CERTIFICATE

TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR ADMISSION to PhD Programme

[This certificate MUST have been issued on or after 1st April 2023]

This is to certify that Shri/Smt./Kum. _____ Son/Daughter of Shri/Smt.

_____ of Village/Town _____

District/Division _____ in the _____ State/UT

belongs to the _____ Community which is recognized as a backward class under:

- (i) Resolution No. 12011/68/93-BCC(C), dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No. 186, dated 13/09/93.
- (ii) Resolution No. 12011/9/94-BCC, dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No. 163, dated 20/10/94.
- (iii) Resolution No. 12011/7/95-BCC, dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No. 88, dated 25/05/95.
- (iv) Resolution No. 12011/96/94-BCC, dated 9/03/96.
- (v) Resolution No. 12011/44/96-BCC, dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No. 210, dated 11/12/96.
- (vi) Resolution No. 12011/13/97-BCC, dated 03/12/97.
- (vii) Resolution No. 12011/99/94-BCC, dated 11/12/97.
- (viii) Resolution No. 12011/68/98-BCC, dated 27/10/99.
- (ix) Resolution No. 12011/88/98-BCC, dated 6/12/99 published in the Gazette of India Extraordinary Part I Section I No. 270, dated 06/12/99.
- (x) Resolution No. 12011/36/99-BCC, dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No. 71, dated 04/04/2000.
- (xi) Resolution No. 12011/44/99-BCC, dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No. 210, dated 21/09/2000.
- (xii) Resolution No. 12016/9/2000-BCC, dated 06/09/2001.
- (xiii) Resolution No. 12011/1/2001-BCC, dated 19/06/2003.
- (xiv) Resolution No. 12011/4/2002-BCC, dated 13/01/2004.
- (xv) Resolution No. 12011/9/2004-BCC, dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No. 210, dated 16/01/2006.
- (xvi) Resolution No. 12015/2/2007-BCC, dated 18/08/2010.

- (xvii) Resolution No. 12015/2/2007-BCC, dated 11/10/2010.
- (xviii) Resolution No. 12015/13/2010-BC-II, dated 08/12/2011.
- (xix) Resolution No. 12015/05/2011-BC-II, dated 17/02/2014.
- (xx) Resolution No. 12011/6/2014-BC-II, dated 07/12/2016.
- (xxi) Resolution No. 12011/13/2016-BC-II, dated 22/12/2016
- (xxii) Resolution No. 20012/1/2017-BC-II, dated 19/01/2017
- (xxiii) Resolution No. 12011/7/2017-BC-II, dated 31/07/2017

Shri/Smt./Kum. _____ and/or his family ordinarily reside(s) in the _____ District/Division of _____ State/UT. This is also to certify that he/she **does not belong to the persons/sections (Creamy Layer)** mentioned in Column 3 of the Schedule to the Government of India, Department of Personnel & Training O.M. No. 36 012/22/93-Estt.(SCT), dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.), dated 09/03/2004, further modified vide OM No. 36033/3/2004-Estt. (Res) dated 14/10/2008, again further modified vide OM No. 36036/2/2013-Estt (Res) dated 30/05/2014.

Place _____ **Signature** _____

Date _____ **Designation** _____

(with seal of office)

NOTE:

- (a) The term 'Ordinarily' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) ^The authorities competent to issue Caste Certificates are indicated below:
 - (i) District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / First Class Stipendiary Magistrate / Sub-Divisional magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of 1ST Class Stipendiary Magistrate).
 - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
 - (iii) Revenue Officer not below the rank of Tehsildar.
 - (iv) Sub-Divisional Officer of the area where the candidate and / or his family resides.

FORMAT FOR DECLARATION TO BE SUBMITTED BY OBC CANDIDATES

I, _____, son/daughter of
Shri _____ resident of village/town/city _____
district _____ of State/UT _____ hereby declare that I belong
to the _____ community which is recognised as a backward class by the
Government of India for the purpose of reservation in services as per orders contained in Department
of Personnel and Training Office Memorandum No.36012/22/93- Estt. (SCT), dated 8/9/1993. It is also
declared that I do not belong to persons/sections (Creamy Layer) mentioned in Column 3 of the
Schedule to the above referred Office Memorandum, dated 8/9/1993, which is modified vide
Department of Personnel and Training Office Memorandum No.36033/3/2004 Estt.(Res.) dated
9/3/2004. I also declare that the condition of status/annual income for creamy layer of my
parents/guardian is within prescribed limits as on financial year ending on March 31, 2022.

Place: _____

Date: _____

Signature of the Candidate

Form I - SPONSORSHIP CERTIFICATE

The applicant Mr./Ms. _____ is employed as _____ in our Institute/Organization since _____ in a pay scale _____. He/She is sponsored to pursue Ph.D. Program in the Department of _____ at National Institute of Technology, Raipur as full time student. We shall relieve him/her duties in the organization during the first three years of Ph.D. program.

Name and Address of the Sponsoring Authority

Seal:

Signature of the Head of the Sponsoring Institution / Organization

(This should be typed on the letter head of the sponsoring organization)

Form II – NO-OBJECTION CERTIFICATE FOR PART-TIME STUDENTS

We have no objection if the applicant, Mr./Ms. _____ employed as _____ in our Institute Organization since _____ in a pay scale _____ is admitted in the Ph.D. program in NIT Raipur as part time Ph.D. student.

He/ She will be permitted to spend minimum 30 contact days per semester in the institute with the supervisor till thesis submission.

Name and Address of the Employer

Seal

Signature of the Head of the Employer Institution / Organization

(This should be typed on the letterhead of the sponsoring organization)

Form III - SPONSORSHIP CERTIFICATE OF EXTERNAL REGISTRATION

Reference No.:

Date:

1. Name of the sponsoring organization: _____

Address: _____

2. Designation of the applicant: _____

3. Present status of the applicant: _____

4. Division/Section where research work is proposed to be done: _____

5. Name of the Local Supervisor: _____

(Bio-data of the Local Supervisor to be enclosed giving details of designation, qualification, Research experience etc.)

6. Details of relevant facilities, which will be made available to the candidate:

7. Statement of Local Supervisor:

If Mr. /Ms. _____ is admitted to the Ph.D. program at National Institute of Technology, Raipur, I agree to supervise his/her research program jointly with the Supervisor from NIT, Raipur

Signature of Local Supervisor

If Mr./Ms. _____ is admitted to the Ph.D. Program, we agree to relieve him/her to enable him/her to be in residence at NIT, Raipur during the first semester of his/her Ph.D. Program.

Mr./Ms. _____ will be permitted to carry out research leading to the Ph.D. degree at our organization under the guidance of Dr. _____ .The necessary facilities will be provided for the purpose.

Signature and Seal of the Sponsoring Authority



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर
NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.) Website: - www.nitr.ac.in

Department wise tentative vacancies (Only for Full Time research Scholars with Institute Fellowship/Scholarship as per regulation R.0.1.1 of PhD Ordinance of NIT Raipur)

| Department | UR | EWS | SC | ST | OBC | TOTAL |
|-----------------------------------|------|-----|----|----|------|-------|
| Architecture | 1 | 0 | 1 | 0 | 1 | 3 |
| Applied Geology | 2 | 0 | 0 | 1 | 1 | 4 |
| Biomedical Engg. | 2 | 0 | 1 | 0 | 1 | 4 |
| Biotechnology | 2 | 1 | 1 | 1 | 1 | 6 |
| Chemical Engg. | 3 | 1 | 1 | 0 | 2 | 7 |
| Chemistry | 1 | 1 | 0 | 1 | 1 | 4 |
| Civil Engg. | 3 | 1 | 1 | 0 | 1+1* | 7 |
| Computer Applications | 3 | 1 | 1 | 0 | 2 | 7 |
| Computer Science & Engg. | 3+1* | 1 | 1 | 1 | 3 | 10 |
| Electronics & Communication Engg. | 4 | 1 | 1* | 1 | 2 | 9 |
| Electrical Engg. | 3 | 1 | 1 | 0 | 2 | 7 |
| Humanities & Social Sciences | 1 | 0 | 0 | 0 | 1 | 2 |
| Information Technology | 4+1* | 1 | 2 | 1 | 3 | 12 |
| Mathematics | 3 | 1 | 1 | 0 | 2 | 7 |
| Mechanical Engg. | 5 | 1 | 2 | 1 | 3+1* | 13 |
| Mining Engg. | 2 | 0 | 1 | 1 | 1 | 5 |
| Metallurgical & Materials Engg. | 2 | 0 | 1 | 1 | 1 | 5 |
| Physics | 1 | 0 | 1 | 0 | 1 | 3 |
| | 47 | 11 | 17 | 9 | 31 | 115 |

* indicates reserved seats for differently abled (PWD/PH) candidates.

Sponsored/self- financed/part time seats are in addition to these depending upon suitability of the candidates and availability of Supervisor/specialization in the department.

This page is intentionally left blank

Annexure 4

Email addresses of the departments of NIT Raipur for the purpose of form submission

The applicants are instructed to send their completely filled application form to the e-mail addresses of the departments (as given below), wherein, they have applied for the PhD programme.

Kindly ensure that your mail contains only three attachments as explained below.

1. The digitally filled and complete application form.
2. One recent passport sized photograph (in .jpg/.png format)
3. Soft copies of all the requisite documents (as mentioned in the application form), merged into a single pdf file and saved as “applicant’s name.pdf”.

| S. No. | Department | e-mail ids |
|--------|---|--|
| 1 | Applied Geology | temprec.ag@nitrr.ac.in |
| 2 | Architecture | temprec.arch@nitrr.ac.in |
| 3 | Biomedical Engineering | temprec.bme@nitrr.ac.in |
| 4 | Biotechnology | temprec.bt@nitrr.ac.in |
| 5 | Chemistry | temprec.chy@nitrr.ac.in |
| 6 | Chemical Engineering | temprec.che@nitrr.ac.in |
| 7 | Civil Engineering | temprec.civ@nitrr.ac.in |
| 8 | Computer Applications | temprec.ca@nitrr.ac.in |
| 9 | Computer Science and Engineering | temprec.cse@nitrr.ac.in |
| 10 | Electrical Engineering | temprec.ee@nitrr.ac.in |
| 11 | Electronics and Communication Engineering | temprec.ece@nitrr.ac.in |
| 12 | Humanities and Social Sciences | temprec.hum@nitrr.ac.in |
| 13 | Information Technology | temprec.it@nitrr.ac.in |
| 14 | Mathematics | temprec.maths@nitrr.ac.in |
| 15 | Mechanical Engineering | temprec.me@nitrr.ac.in |
| 16 | Metallurgical and Materials Engineering | temprec.met@nitrr.ac.in |
| 17 | Mining Engineering | temprec.min@nitrr.ac.in |
| 18 | Physics | temprec.phy@nitrr.ac.in |

This page is intentionally left blank