

राष्ट्रीय प्रौद्योगिकी संस्थान — रायपुर NATIONAL INSTITUE OF TECHNOLOGY RAIPUR (Institute of National Importance) G.E. Road, Raipur – 492010 (C.G.) Phone: (0771) 4270619 Fax : (0771) 2254600 E-mail: registrar@nitrr.ac.in

No./NITRR/Registrar/2014/

Date:

Website: www.nitrr.ac.in

Ph. D. Admission for Academic Year 2014

Applications are invited for Ph.D. Admissions (Full time regular/Sponsored/Part time categories) for the Academic Session 2014 in Department/Centre of Applied Geology, Bio-Technology, Chemical Engineering, Chemistry, Civil Engineering, Computer Application (MCA), Computer Science & Engineering, Electrical Engineering, Electronics & Tele Communication Engineering, Humanities & Social Sciences, Information Technology, Mathematics, Mechanical Engineering, Metallurgical Engineering, Mining Engineering & Physics with specialization and area as mentioned in the Institute website: <u>www.nitrr.ac.in</u>. Numbers of seats for Ph.D. admission are not fixed. Hence preference will be given to OBC/SC/ST/PH candidates over OC candidates if all other things remain the same.

How to Apply:

The application forms and other relevant information may be downloaded from the institute website: <u>www.nitrr.ac.in</u> The filled applications along with a crossed DD towards application fee drawn in favour of "Director, NIT Raipur" payable at Raipur should reach to "The Registrar, NIT Raipur, CG 492010" on or before 21.04.2014 in an A4 size envelope with super scribing "Ph.D. Admission for Academic Year 2014 in ______ (Name of the Department)"

Application Fee:

Rs. 200/- for General and OBC category applicant. For SC/ST/PH candidates, fee will be Rs. 100/- only.

Note: The results of scrutiny and selection will be displayed in the Institute website www.nitrr.ac.in and no intimation will be sent to the candidates by post. The candidates are requested to visit Institute website regularly.

Registrar NIT Raipur



राष्ट्रीय प्रौद्योगिकी संस्थान – रायपुर

NATIONAL INSTITUE OF TECHNOLOGY RAIPUR

(Institute of National Importance) G.E. Road, Raipur – 492010 (C.G.) Phone: (0771) 2254200 Fax : (0771) 2254600 E-mail: director@nitrr.ac.in Website: www.nitrr.ac.in

1. ELIGIBILITY FOR PH.D. ADMISSIONS

1.1 Educational Qualifications

The Minimum qualifications for admission to the Ph.D. programme shall be:

A Master's degree in Engineering/Technology/Science/Management/Architecture/ Planning/Humanities and Social Science or any other equivalent qualification recognized by the institute. Minimum 60% marks or 6.5/10 CGPA /CPI at Master's degree is essential for admission in Ph.D. programme of the institute.

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

Candidates who are appearing in qualifying examination are also eligible to apply. However, they have to produce a certificate of passing the qualifying examination as stated above on the day of interview.

1.2 Other Conditions

- A candidate should apply for full time regular/sponsored/part time candidate on the prescribed form on or before due date fixed for the same.
- There is no age limit for the applicant.
- Candidates are advised to refer Ph.D. ordinance available in the institute website to make sure their eligibility on full time regular/sponsored/part time category.

2. SELECTION PROCESS

- (i) Selection for Ph.D. program will be done on the basis of objective type written examination and interview.
- (ii) Regular faculty and staff member of NIT Raipur who have successfully completed their probation period need not to appear in written entrance examination. Similarly, UGC/CSIR (JRF)/NET/Teacher Fellowship holder/M. Phil. passed candidates need not to appear in written entrance examination.
- (iii) All other eligible candidates will be shortlisted based on their performance in written examination.
- (iv) All shortlisted candidates along with candidate of category (ii) above will be called for interview for final selection.

3. RESERVATION/RELAXATION

Number of seats for Ph.D. admission is not fixed. Hence preference will be given to OBC/SC/ST/PH candidates over OC candidates if all other things remain the same.

4. DATE OF WRITTEN EXAMINATION AND INTERVIEW

The date of written examination and interview is not yet finalized. These dates along with result of scrutiny and selection will be displayed in the institute website **www.nitrr.ac.in** and no intimation will be sent to the candidates by post. The candidates are advised to visit institute website regularly.

5. SCHOLARSHIP

The award of scholarship/fellowship to full time candidates will be applicable accordingly to Central Government/MHRD norms.



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S.No.	Departments	Broad Research Areas
1	Applied Geology	Petrology and Geochemistry, Hydrogeology, Remote Sensing & GIS.
2	Bio-Technology	Applied Microbiology, Enzyme Technology, Biosensor Development
		Alternative Energy production, Infectious disease, Biochemistry,
		Biopolymer development, Metabolic disease.
3	Chemical	Nanotechnology, Electrochemistry, Semiconductors, Environmental
	Engineering	pollution control, Membrane separation, Biodegradation, Nano
		Composition.
4	Chemistry	Nuclear Industry Materials, Organic Synthesis, Drug Designing &
		DNA Binding, Heterocyclic Chemistry, Polymer Chemistry
		Nanomedicine, Polymer Nanocomposite, & Micro Cellular
		composites, Environmental Chemistry.
5	Civil Engineering	Water and wastewater pollution control, Air pollution, Solid waste
		management, System Identification. Structural dynamics, Damage
		detection, Noisy data analysis, Finite element techniques, Concrete
		Technology, F.R.P., Soil – structure – interaction, Non – linear
		analysis, Earthquake Engineering, Structural Dynamics.
6	Computer Aplication	Heuristic and meta-heuristic techniques for combinatorial optimization
	(MCA)	problems, Computer Networks, Communication, Internet Security.
7	Computer Science &	Data mining & Applied Stastics, Time Series Analysis, NLP & Text
	Engineering	Mining, Big Data Analysis & Techniques, Distributed Computing
		System, Cloud Computing, File Replication & Consistency
		Management, Trust Based Security.
8	Electrical	Power system protection, Smart Grid protection, protection of lines
	Engineering	with FACTS devices, Power system, Power Quality, Transmission
		Lines protection using AI Techniques (ANN, Fuzzy, GA,
		Wavelet), Conventional Control, Intelligent Control, Applications of
		Optimization, Model Reduction, Evolutionary optimization
		applications in signal processing & control system, Medical Signal &
		Image processing, speech processing, medical ultrasound.

9	Electronics & Tele	Wireless sensor networks ,Wireless Communications.
	Comm.	
10	Humanities & Social	Indian Literature, American Literature, English Literature,
	Sciences	Comparative Literature, Business Communication.
11	Information	Ad hoc Networks, Sensor Networks.
	Technology	
12	Mathematics	Algebra, Fuzzy Algebra, Rough Algebra. Approximation theory, Fixed
		point theory, Functional Analysis, Liner Algebra, Queueing Theory,
		Inventory Systems, Mathematical Ecology and Dynamical systems,
		Mathematical and chaos Modeling, Fluid Dynamics, Micropolar and
		couple stress fluids, porous media, Mathematical Modeling,
		Mathematical Ecology, Cryptology, Cryptographic Boolean functions,
		Coding theory, Network Security.
13	Mechanical	Industrial Engineering & Management, Strategic Management,
15	Engineering	Thermal Engineering (Thermodynamics, Heat Transfer), Mechanical
	Lingineering	Design Engineering (Tribology, Lubrication & related stress analysis),
		Design Engineering (Computational Mechanics, Stress Analysis,
		Dynamics)
14	Matallurgiaal	
14	Metallurgical	Structure-property, correlation/ Tribology / welding.
15	Engineering	Minim Fraziera De 1 Martania Cara 1 Carta 1 Mina 1 aria
15	Mining	Mining Engineering, Rock Mechanics, Ground Control, Mine planning
	Engineering	in open cast mines, Mine Management & General safety, Open Cast
		Mining, Equipment performance in Mines, Geomatics, GIS & Remote
		sensing, Computer application, IT Application, Environment,
		ventilation, Geology, Hydrogeology, Automation, Economics,
		Management, Civil Engineering application mining, Mining allied
		areas.
16	Physics	Condensed Matter Physics : Experimental & Theoretical
		Luminescence, Graphene plasmatic biosensors (Theory)



राष्ट्रीय प्रौद्योगिकी संस्थान – रायपुर

NATIONAL INSTITUE OF TECHNOLOGY RAIPUR Phone: (0771) 2252700

(Institute of National Importance)

G.E. Road, Raipur – 492010 (C.G.)

Fax : (0771) 22524600 E-mail: registrar@nitrr.ac.in Website: www.nitrr.ac.in

<u>Regist</u>	ration Number: PH.D. APPL	ICATION F	ORM	(for	coffice use only)
1.	(a) Name of the candidate:				
	(b) Date of Birth: DD MM	YYYY			Space for Photo (Passport Size) (Attested)
	(c) Sex: Male/Female (d) Ma	arital Status: Ma	arried/Single		
	(e) Father's/Guardian's /Husband's Name:				
2.	Programme Applied for:	in t	the department	nt of	
3(i)	Are you regular faculty/employee of NIT Rai	pur	YES	NO	
	If yes, date of completion of probation:				
(ii)	Are you UGC/CSIR (JRF)/NET/Teacher Fell holder/ M. Phil. passed candidate	owship	YES	NO	
	(Note: Enclose certificate and proof of the ab	ove)			
4.	Programme category in which interested: Regular full time Sponse	ored	Par	t time	
5.	Are you physically challenged-PH:		YES	NO	
6.	Category:	GEN()		SC	
	(Note: Copy of the Caste certificate in present	ibed Central Go			appropriate box) be attached)
7.	Nationality:				
8.	Address for Communication				
	Communication /Mailing Address		Permane	ent Address	5
Phone		Mobile			
E-mail	l				

9. Education Qualification (Starting from U.G.)

S.No.	Name of degree	Specialization	Name of Institute / university	Year of passing	% Marks/ CGPA

(Note: Attach attested photocopies of all the certificates)

10. Details of Professional Experience (starting from current experience):

S. No.	Duration		Name and Address of Employer	Position held		
1.						
2.						
3.						

11. Publications if any and enclose reprints with full details of publication.

Details of Application Fee Enclosed 12.

Demand Draft No.: ______ Amount Rs.: _____

Date: Name of the Bank: (Note: DD must be in favour of Director NIT Raipur and payable at Raipur)

DECLARATION/ UNDERTAKING

- (a) I hereby declare that the above given information is true and correct to my knowledge.
- I have read and understood the rules & regulations given in the Institute Prospectus and promise that (b) I shall obey them.
- I hereby undertake to abide by the rules of the Institute. (c)
- I have noted that if my application is incomplete in any respect or information furnished is proved (d) wrong then my application may be rejected and the admission already offered/granted may be cancelled.
- **(e)** Important: I understand that the results of scrutiny and selection will be displayed on institute website. I will not be intimated individually. Therefore, I have to visit institute website regularly.

Date: _____

Place:

(Name & Signature of the Candidate)

ANNEXURE-I OBC Certificat Format

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS / ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA

"This certificate MUST have been issued on or after 1st January 2014."

This i	s to certify that Shri/Smt./Kum.							Son/Da	ughte	er of
Shri/S			of Village/Town							
Distrie	ct/Division							belong		the
		ty which is re	_					-		
(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.								ction	
(ii)	Resolution No. 12011/9/94-BCC No. 163 dated 20/10/94.	dated 19/10/	94 publis	hed in t	he Gazette	of India Ext	raordina	ry Part	[Sect	ion I
(iii)	Resolution No. 12011/7/95-BCC No. 88 dated 25/05/95.		-	hed in t	he Gazette	of India Ext	raordina	ry Part	[Sect	ion I
(iv)	Resolution No. 12011/96/94-BCC									
(v)	Resolution No. 12011/44/96-BC0 No. 210 dated 11/12/96.		-	hed in t	he Gazette	of India Ext	raordina	ry Part	Sect	ion I
(vi)	Resolution No. 12011/13/97-BCC									
(vii)	Resolution No. 12011/99/94-BCC									
(viii)	Resolution No. 12011/68/98-BCC				1 0			D		
(ix)	Resolution No. 12011/88/98-BC0 No. 270 dated 06/12/99.		-					-		
(x)	Resolution No. 12011/36/99-BC0 I No. 71 dated 04/04/2000.	C dated 04/04	/2000 pul	olished i	n the Gaze	tte of India E	xtraordi	nary Par	t I Se	ction
(xi)	Resolution No. 12011/44/99-BC0 I No. 210 dated 21/09/2000.	C dated 21/09	/2000 pul	blished i	n the Gaze	tte of India E	xtraordi	nary Par	t I Se	ction
(xii)	Resolution No. 12015/9/2000-BC	C dated 06/09	9/2001.							
(xiii)	Resolution No. 12011/1/2001-BC	C dated 19/06	5/2003.							
(xiv)	Resolution No. 12011/4/2002-BC									
(xv)	Resolution No. 12011/9/2004-BC I No. 210 dated 16/01/2006.	C dated 16/01	l/2006 pu	ıblished	in the Gaze	ette of India E	Extraord	inary Pai	t I Se	ction
Shri/S	mt./Kum	/Division of			2	ordinarily State T			in ertify	the
ha/aha	e does not belong to the persons	Division (C	I	aver) m	antionad	State. 1	$\frac{113}{2}$ of the	Schod	ula to	that
	nment of India, Department of Pe lified vide OM No. 36033/3/2004		•		. 36012/22	2/93-Estt.(SC	(1) date	a 08/09	/93 W	nich
15 11100		Lott. (1005.) ut		5,2004.						
Dated	:					,				
					strict Magi					
				Dep	outy Comn	nissioner, etc				

Seal

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:
 - District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / Ist Class Stipendiary Magistrate / Sub-Divisional magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
 - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
 - (iii) Revenue Officer not below the rank of Tehsildar and
 - (iv) Sub-Divisional Officer of the area where the candidate and / or his family resides.

Caste Certificate issued from Maharashtra State must be validated by social welfare Department of Maharashtra Government

ANNEXURE-II OBC Undertaking

(Declaration/undertaking - for OBC Candidates only)

I,	son/daughter of Shri	resident of villag	ge/town/city
district	State hereby declare that I be	long to the	community which is
recognised as a backward	class by the Government of India for	or the purpose of reservation	on 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 declare	d that I do not belong to persons/se	ections (Creamy Layer) mer	ntioned in Column 3 of the
Schedule to the above refer	red Office Memorandum, dated 8/9/	1993, which is modified vie	de Department of Personnel
and Training Office Memo	orandum No.36033/3/2004 Estt.(Res	s.) dated 9/3/2004. I also d	eclare that the condition of
status/annual income for cr	reamy layer of my parents/guardian	is within prescribed limits	as on financial year ending
on March 31, 2014.			

Signature of the Candidate

Place:

Date:

Declaration/undertaking not signed by Candidate will be rejected

ANNEXURE-III SC/ST Certificate Format

(FORM OF CERTIFICATE TO BE PRODUCED BY A CANDIDATE BELONGING TO SCHEDULED CASTE OR SCHEDULED TRIBE)

This is to certify that	Shri/Smt./Kum.	Son/Daughter of
Shri	of village/Town	in District/
Division	of the State/Union Territory	belongs to the
	caste/Tribe, which is recognized as a Scho	edule Caste / Scheduled Tribe
under.		
The Constitution (Scheduled Cast	tes) order, 1950.	
The Constitution (Scheduled Trib		
The Constitution (Scheduled Cast	tes)(Union Territory) order, 1951.	
The Constitution (Scheduled Trib	bes) (Union Territory) order, 1951.	
(As amended by the Scheduled C	astes and Scheduled Tribes (Modification) Order 1956, the Bon	nbay Reorganization Act,
1960, the Punjab Reorganization	Act, 1966, The State of Himachal Pradesh Act, 1970, the North	Eastern Areas
(Reorganization Act, 1971) and the	he Scheduled Castes and Scheduled Tribes orders (Amendment) Act, 1976.)
	hmir) Scheduled Caste Order, 1956;	
	Nicobar Islands) Scheduled Tribes, 1959, as amended by the S	Scheduled Castes and
Scheduled Tribes orders (Amende		
	gar Haveli) Scheduled Castes Order 1962;	
	ar Haveli) Scheduled Tribes Order, 1962;	
*The Constitution (Pondichery) S		
*The Constitution (Uttar Pradesh		
	& Dieu) Scheduled Castes Order, 1968;	
	& Dieu) Scheduled Tribes Order, 1968;	
*The Constitution (Nagaland) Sch		
*The Constitution (Sikkim) Schere		
*The Constitution (Sikkim) Scheduled Ca	stes) Orders (Amendment) Act, 1990.	
	ibes) Orders (Amendment) Act, 1990.	
	ibes) Order, (Second Amendment) Act, 1991.	
*The Constitution (Scheduled Tri		
This certificate is issued or	n the basis of the Scheduled Castes/Scheduled Trib	bes Certificate issue to Shri
	Father of Shri	of
village/town	in District/Division	of the State/UT
	who belongs to the caste/Tribe w	which is recognized as a SC/ST
	issued by the	
(name of the prescribed iss	uing authority) vide their No.	dated
or Shri	and or his/her fa	amily ordinarily reside(s) in
Village/Town	of District/Division of the State/Union Te	erritory of
Place	Signature	
Date	Designation	
	(With	seal of Office)

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

(2) Candidates from Maharashtra have to produce CAST VALIDITY certificate along with the cast certificate

LIST OF AUTHORITIES EMPOWERED TO ISSUE CASTE/TRIBE CERTIFICATE:

- 1. District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner /Additional Deputy Commissioner
- / Dy. 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.

ANNEXURE-IV SPONSORSHIP CERTIFICATE

(Sponsored candidates should attach the following certificate from the employer)

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/he	r 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

ANNEXURE-V NO OBJECTION CERTIFICATE FOR PART TIME STUDENT

(Part time candidates should attach the following certificate from the employer)

We have no o	bjection if the applicant Mr./Ms.				is
employed as			in	our	Institute /
Organization since _	in a pay scale		is adn	nitted	in the Ph.D.
program in NIT Raip	our as part time Ph.D. student. He/ S	She will be permitted to spe	end m	inimu	m 30 contact
days per semester in	the institute with the supervisor till t	thesis submission.			

Name and Address of the Employer

Seal

Signature of the Head of the Employer Institution / Organization