Post graduate Program INFORMATION BROCHURE 2011

Master of Technology – (M. Tech.)
and
Master in Urban & Regional Planning – (MURP)

राष्ट्रीय प्रौद्योगिकी संस्थान पटना
NATIONAL INSTITUTE OF TECHNOLOGY PATNA

Contact Details:

राष्ट्रीय प्रौद्योगिकी संस्थान पटना
NATIONAL INSTITUTE OF TECHNOLOGY PATNA
Ashok Raj Path, Patna 800005, BIHAR

Registrar:	0612- 2660480	**Institute Tele fax No.:**	0612- 2670631
Email ID:	registrar@nitp.ac.in	**Website:**	www.nitp.ac.in
Institute Phone No.:	0612 – 2370419, 2371715, 2371929, 2371930, 2372715		
Extension No.	Director – 101	Registrar - 104	
	Dean (Academics) - 247		
	DR (Examination) – 105	Program Officer (A&E) - 105	

Important dates for Admission to Ph. D/ M. Tech/ MURP Program:

S. N.	Admission Activities	Important dates	Days
1	**First Admission Advertisement for Ph. D/ M. Tech/ MURP Program**	19th May 2011	Thursday
2	Issue of Application form & information brochure from NITP office. **Application form may be down loaded from website www.nitp.ac.in**	19th May 2011	Thursday
3	**Last date for receipt of Application**	**6th June 2011**	**Monday**
4	Admission Test for Ph. D and M. Tech. Sponsored category Candidates	11th June 2011	Saturday
	Interview for Ph. D and Sponsored category Candidates	12th June 2011	Sunday
5	Merit list of GATE qualified Candidates and rejected applications on Institute Notice Board and Website	14th June 2011	Tuesday
	Merit list of Ph. D. and M. Tech sponsored Candidates on Institute Notice Board and Website	21st June 2011	Tuesday
6	**Counseling & Admission for Ph. D program**	27th June 2011	Monday
7	**Counseling & Admission for M. Tech/ MURP (first Round)**	28th June 2011	Tuesday
	Spot Counseling & Admission for M. Tech/ MURP - Last Round (Against vacant seats, if any. Only for eligible candidates who have already applied/ or reporting on the spot on inter-se-merit.)	11th July 2011	Monday
8	**Last date for Admission to M. Tech/ MURP Program**	**15th July 2011**	**Friday**
	Academic activities Details		
9	**Registration in 1st Semester Ph. D./ M. Tech/ MURP Program**	25th & 26th July 2011	Monday & Tuesday
10	**Commencement of Classes**	27th July 2011	Wednesday

Candidates must write on top of the envelope "*Admission to M. Tech/ MURP Program- 2011: in the Dept. of Civil/ Elect/ Mech./ CSE/ ECE/ ARCH.*". *Completed application for admission on the prescribed form be sent by Registered post/ Speed post/ Currier service or be deposited in Academics Section.*

The application must reach on or before last date and time for submission of the same to

> *Program Officer (A & E), Academic Section*
> *National Institute of Technology Patna*
> *Ashok Raj Path, Patna – 800005*

Important Notice:

- *NIT Patna will not be responsible for any postal delays in receipt of application.*
- *All matters of disputes will be subject to legal jurisdictions of relevant courts at Patna only.*
- *The Institute reserves the right to amend, without any notice any provisions stated in this brochure.*

Direct Admission of Students from Abroad (DASA): Detailed admission procedure, online application and brochure for the current revised scheme is available on www.dasanit.org and www.nitk.ac.in

Information Brochure Post graduate Program 2011, NIT Patna

CONTENTS

Information Brochure Post graduate Program 2011, NIT Patna

VISION:

To contribute to India and the World through excellence in scientific and technical education and research; to serve as a valuable resource for industry and society; and to remain a source of pride for all Indians.

MISSION:

To generate new knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate and doctoral programmes.

To identify, based on an informed perception of Indian, regional and global needs, areas of specialization upon which the Institute can concentrate.

To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.

To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

VALUE:

- *Academic integrity and accountability.*

- *Respect and tolerance for the views of every individual.*

- *Attention to issues of national relevance as well as of global concern.*

- *Breadth of understanding, including knowledge of the human sciences.*

- *Appreciation of intellectual excellence and creativity.*

- *An unfettered spirit of explorating, rationality and enterprise.*

INTRODUCTION

The National Institute of Technology Patna (NITP) is the eighteenth National Institute created, by the Ministry of Human Resources Development, Govt. of India upon rechristening the erstwhile Bihar College of Engineering, Patna. This institute is in the process of achieving the status of a center of excellence to impart higher training research and development in Science, Engineering & Technology. NIT Patna's humble beginning can be traced to 1886 with the establishment of a pleader's survey training school, subsequently elevated to the Bihar College of Engineering, Patna in 1924 at the present site with the introduction of graduate level engineering curriculum. M. Sc. (Engg.) was introduced in 1978. The institute is fully equipped to take up its role as a **Corporate Body** with powers to decide its own academic policy to conduct its own examination and to award its own degrees.

The institution was declared National Institute of Technology on January 24, 2004 and known as "National Institute of Technology Patna". The institute is an autonomous institution under Ministry of Human Resource Development, Govt. of India under NIT Act - 2007. Prior to the enactment of NIT Act, the institution was attached to Patna University for the purpose of examination and award of degree.

The institute offers admission to Under-graduate program and Post-graduate Programme(s) every academic session on the basis of all India competition. It offers B. Tech. degree of four year duration full time courses in Electrical Engineering, Mechanical Engineering, Civil Engineering, Electronics & Communications Engineering, Information Technology, Computer Science & Engineering, and B. Arch degree of five years duration in Architecture; and M. Tech Degree of two years duration in Electrical Engineering, Mechanical Engineering, Civil Engineering with different specializations. The institute introduced doctoral program in different disciplines from session 2010-11. The department of Computer Science & Engineering, Electronics & Communication Engineering and department of Architecture has introduced Master's program in technology and Urban & Regional Planning respectively from session 2011-12. The activities of the Institute are growing at faster rate towards achievements of Global Standard.

The making of an engineering leader requires sustained intellectual alertness, creativity and talent for innovation which must be continuously nurtured to achieve professional competence. The Institute provides pleasant surroundings with an intellectually stimulating campus to its students. The courses are managed by qualified teachers who rely on direct personal contact to disseminate intensive theoretical and practical knowledge to the students. The existing laboratories are being modernized to meet the aspiration & needs of tomorrow. The existing infrastructures provide a conducive environment with an exciting campus life so necessary for professional growth.

Location

The Institute is situated on the southern bank of river Ganges behind Gandhi Ghat, one of the most important reverence places of Patna. The Institute campus is approximately 8 km from the Patna Junction railway station and 15 km from the Jai Prakash Narayan International Airport, Patna. The entry to the institute is from Ashok Raj Path and it is about 3 KM from Gandhi Maidan. The site map is enclosed for reference.

Campus

The Institute campus is spread over 40 acres and a picturesque river view with numerous historic buildings presenting a spectacle of architectural delight and natural beauty. It is partially residential in nature providing residential facilities to some of its students as well as to the faculty and staffs as per availability. Behind the historic administrative building lies the main academic building, which also houses the Civil Engineering Department and the Information Technology departments. A Central Library building at the entrance of the institute has all possible modern facilities including e-resources. The Electrical and Mechanical Engineering Departments face one another about 200 meters west from the Administrative Building. The Department of Architecture, Electronics & Communication,

Information Brochure Post graduate Program 2011, NIT Patna

Computer Science & Engg. and Centre for Water Resources Studies are located in separate buildings 300 meter to the east. Several other facilities like large lecture theatres with modern equipment's & amenities, student's activities center and auditorium are likely to come up very soon.

The institute has play ground where many National level football and cricket matches arranged in the past when Patna had no stadium. The extra-curricular activities include facilities for outdoor & indoor games, boating & rowing, open air theatre and availability of the local chapter of SPICMACAY. While banking facility is available in campus, Post-office and shopping centers are in the near vicinity. NIT Patna is the Institutional member of The Indian Society for Technical Education (ISTE), which is devoted to promotion of quality and standards in technical education.

The institute runs seven essential services in the campus namely 24 hours Electric Supply, suitable drinking water, sanitation and maintenance of cleanliness, security arrangements, and ambulance service for medical emergency, EPBX and Internet facilities. The library and all departments are under local area network and share the different academic/ student information database including with e-Library through PCs available in various departments, office, library and other offices.

Under-graduate, Post-graduate and Doctoral Programmes

S. No.	Degree/Program	Branch of Specialization	Duration
Under Graduate Program:			
1	**B. Arch**	Architecture	5 year – Full time
2	**B. Tech**	Civil Engineering	4 year – Full time
3		Computer Science & Engineering.	
4		Electronics & Communication Engineering.	
5		Electrical Engineering.	
6		Information Technology	
7		Mechanical Engineering.	
Post Graduate Program:			
1	**M. Tech** *Elect. Engg.*	Control System Engineering	2 year – Full time
2		Power System Engineering	
3	**M. Tech** *Civil Engg.*	Structural Engineering.	
4		Transportation Engineering.	
5		Water Resources	
6	**M. Tech** *Mech. Engg.*	Refrigeration, Air-conditioning & Heat Transfer	
7		Thermal Turbo Machinery	
8	**M. Tech** CSE	Computer Science & Engineering	
9	**M. Tech** *Electronics &*	Communication Systems	
10	*Comm. Engg*	VLSI System Design and Microelectronics[1]	
11	**MURP**	Urban & Regional Planning	
12	**Ph. D**	Architecture	Minimum 3 Yrs.
13		Chemistry	
14		Civil Engineering	
15		Computer Science & Engineering	
16		Electrical Engineering	
17		Humanities & Social Sciences	
18		Mathematics	
18		Mechanical Engineering	
19		Physics	

---

[1] Proposed to be Introduced from Session 2012-13 as per 8th Senate meeting held on 02.04.2011

ADMISSION PROCEDURES FOR M. TECH./ MURP PROGRAM

The institute offers Post-graduate Program (M. Tech) under different disciplines and specializations by various Departments. The details of specialization, Minimum Eligibility criterion and Seat distribution under different department are as detailed below.

The duration of M. Tech. full time Programme is four semesters. The course structure for different department/ specialization is placed at Annexure – II for reference.

Institution Level Counseling for seats under different specialization under different categories of candidates including Sponsored category candidates shall be conducted by the Institute, as per schedule notified in the information brochure for the program. The eligible candidates are required to apply to get admitted to the M. Tech. programmes in the Institution. Applications for admission of candidates through Institute Level Counseling are invited through an advertisement in the leading newspapers and institute website.

Admission to the M. Tech program against sanctioned seats shall be done by the institute based on GATE Score in different branch as indicated below. However admission to the program during next session is proposed to be taken through Centralized Admission Counseling for M. Tech program of all NIT's in India. In such case admission criterion shall be as per Central Admission Counseling Committee only.

An eligible candidate willing to apply for more than one department for different specialization based on their GATE Score eligibility, then he/ she is required to apply on separate application forms.

Seats Distribution under different Categories:

Category wise Seats allocation after providing quota as SC-15%, ST- 7.5% & OBC - 27% and Horizontal reservation to Physically Challenged (PH – 3%) category is detailed below:

S. No.	Department offering the Program	Master's Program/ Specialization	OP	OBC	SC	ST	Total	PH ##	DASA	Sponsored
1.	Electrical	Control System	14	7	4	2	**27**	1	4	
2.	Engineering	Power System	14	8	4	2	**28**	1	4	
3.	Civil	Structural Engineering	14	8	4	2	**28**	1	4	
4.	Engineering	Transportation Engineering	14	7	4	3	**28**	1	4	
5.		Water Resources	14	7	5	2	**28**		4	
6.	Mechanical	Thermal Turbo Machines	14	8	4	2	**28**	1	4	Two Seats/ Specialization
7.	Engineering	Refrigeration, Air conditioning and Heat Transfer	14	7	4	2	**27**		4	
8.	Computer Science & Engineering	Computer Science & Engineering	**9**	**5**	**3**	**1**	**18**	**1**	**3**	
9.	Electronics & Communication Engineering	Communication Systems	**9**	**5**	**3**	**1**	**18**	**1**	**3**	
10.		VLSI System Design and Microelectronics[2]	**9**	**5**	**3**	**1**	**18**			
11.	Architecture	Urban & Regional Planning	**9**	**5**	**3**	**1**	**18**	**1**	**3**	
		Total	**134**	**72**	**41**	**19**	**266**	**8**	**37**	

##	**PH Category reservation** shall be on horizontal basis i.e. may be allowed to any category candidate; however total seats in that category shall same.

Category wise Seats allocation after providing quota as SC-15%, ST- 7.5% & OBC - 27% and Horizontal reservation to Physically Challenged (PH – 3%) category is detailed above.

Sponsored category: M. Tech/ MURP program - Additional Seats as indicated have been allocated to each specialization for admission as per rules of the Institute.

Direct Admission of Students from Abroad (DASA): Detailed admission procedure, online application and brochure for the current revised scheme is available on www.dasanit.org and www.nitk.ac.in

---

[2] Proposed to be Introduced from Session 2012-13 as per 8th Senate meeting held on 02.04.2011

Qualification & Eligibility Criteria for admission to Post Graduate Program with different Specializations [3]

S. No.	Department offering Program	Specialization	Disciplines/ branch that are eligible for Admission (order of preference for admission)	Eligibility Criterion/ Qualification, CGPI/ CGPA, % Marks etc. #
1.	Electrical Engineering	Control System	(i) Electrical Engg, or Electrical & Electronics Engg, (ii) Instrumentation & Control Engg, or Instrumentation Engg. (iii) Electronics & Instrumentation Engg, (iv) Applied Electronics & Instrumentation Engg (v) Electronics & Communication Engg	(a) Bachelor's degree in relevant discipline (as detailed in last Column) or equivalent such as AMIE/ Grade IETE degree etc. *For Computer Sc. & Engg. MCA are also eligible*.
2.		Power System	(i) Electrical Engg or Electrical & Electronics Engg. (ii) Instrumentation & Control Engg. or Control Engg. (iii) Applied Electronics & Instrumentation Engg	(b) Open / Sponsored Category: Minimum 60% marks in aggregate (of all the years/ semesters) or CGPA of 6.75 on a ten point scale.
3.	Civil Engineering	Structural Engg.	Civil Engg	(c) OBC Category: Minimum 60% marks in aggregate (of all the years/ semesters) or CGPA of 6.75 on a ten point scale.
4.		Transportation Engg.	(i) Civil Engg (ii) Transportation Engg	
5.		Water Resources	Civil Engg	
6.	Mechanical Engineering	Refrigeration, Air conditioning and Heat Transfer	(i) Mechanical Engg. (ii) Automobile Engg. (iii) Aeronautical Engg.	(d) Relaxation in the eligibility criteria to SC/ ST/ PH candidates: minimum 55% Marks in (of all the years/ semesters) or CGPA of 6.25 on a ten point scale may be permitted.
7.		Thermal Turbo Machines	(iv) Marine Engg	
8.	Computer Science & Engineering	Computer Science & Engineering	Bachelor's Degree in (i) Computer Sc. Engg (ii) Information Technology (iii) Electronics & Comm. Engg (iv) Electrical Engineering (v) Electrical & Electronics Engg. Master's degree in Computer Application	(e) Candidates presently in last semester/ final year may be considered for admission provided they fulfill above criterion and submit final result before start of academic session.
9.	Electronics & Communication Engineering	Communication Systems VLSI System Design and Microelectronics[4]	(i) Electronics & Comm. Engg (ii) Electronics Engg. (iii) Telecommunication Engg. (iv) Computer Sc. & Engg.	
10.	Architecture	Urban and Regional Planning	(i) Planning (ii) Architecture or (iii) Civil Engg. (iv) Architectural Engg	

---

[3] Vide amendment approved in the 8th Senate meeting held on 02.04.2011
[4] Proposed to be Introduced from Session 2012-13 as per 8th Senate meeting held on 02.04.2011

Minimum Eligibility Criteria for Admission:

Admission to Post Graduate program (M. Tech. and MURP) will be granted in the Autumn (Odd) semester of each academic session on the basis of the performance at Common all India competitive test known as *Graduate Aptitudes Test (GATE) for Engineering and Architecture*. The candidate must have

(i) Passed Bachelor's degree or equivalent examination with specialization in relevant branches/ disciplines as specified for different Master's specialization/ courses.

(ii) The candidates under different categories must have minimum percentage of marks in aggregate (of all the semesters/ years) or minimum CGPA in 10 point scale (as determined by NIT Patna) in their qualifying examination.

(iii) Candidates presently in last semester/ final year may also be considered for admission provided they fulfill above criterion and submit final passing result before start of academic session. If the candidates selected for admission fails to submit passing certificate or his/ her percentage marks in aggregate falls below the minimum requirement, then his/ her admission shall stand cancelled.

(iv) Admission under different categories shall be made in order of preference of discipline/ branch of specialization on GATE Score of the candidate for different specialization.

(v) The GATE score certificate may be used by the candidate for one time admission only.

(vi) Merit list of the candidates based on **qualifying GATE score** shall be prepared for grant of admission. Candidate's Inter-se-merit shall be as per preferential order of Branch/ Specialization at Bachelor's degree program indicated above. The minimum cut off GATE score notified by GATE authority may be revised by the Institute.

(vii) The minimum percentage cut-off of marks/ CGPA in qualifying examination and cut-off GATE Score Percentile for different categories of candidates is detailed below:

Category of candidate	Minimum % Marks in aggregate/ CGPA (In ten point Scale) in Qualifying Examination	Minimum GATE Qualifying Score
General	60% in Aggregate/ CGPA: 6.75	As per direction of GATE/ MHRD, GOI
OBC #	60% in Aggregate / CGPA: 6.75	As per direction of GATE/ MHRD, GOI
SC/ ST/ PH	55% in Aggregate / CGPA: 6.25	As per direction of GATE/ MHRD, GOI
Sponsored	60% in Aggregate / CGPA: 6.75	

As per direction of MHRD, Govt. of India "Maximum Cut-off Marks for OBCs be 10% below the cut-off marks of General category candidates."

Reservation of Seats

At present reservation for candidates under OBC category is 27%, SC category is 15% and ST category is 7.5% of the total seats. The GATE qualifying score/ minimum Cut off under reserved seats for OBC/ SC/ ST and PH category shall be as per reservation policy/ notification and directives of Ministry of HRD, Govt. of India.

The candidates claiming reservation under OBC Category are required to produce certificates as per provisions of the OBC Reservation for verification at the time of admission. The OBC candidates are required to produce certificate issued by competent authority stating that his/ her parent's income is below ₹ 2.5 lakhs per annum and they (Parents) do not belong to service group as per provisions of creamy layer defined by the Govt. of India and Hon'ble Supreme court orders with respect to OBC reservation.

Under Physically challenged (PH) category, horizontal reservation has been granted, i.e. under this all category candidates are considered for each specialization as per their eligibly

and seat allocated. If a physically challenged (PH) category from OP/ OBC/ SC/ ST category is found eligible and is admitted, then a seat from that category is reduced.

All OBC/ SC/ ST and PH candidates will be required to produce Original certificate issued by competent authority (SDO/ DC/ DM) at the time of counseling, failing which they will not be considered for admission under that category.

Different Performa for OBC/ SC/ ST and Physically challenged candidates is available at Annexure – V to VIII (A) along with application form.

Any change/ amendment with respect to reservation of seats shall be informed through Institutional website as and when Government orders for the same are issued.

Medical Examination

It is expected that all full time candidates (except employed) will have good general physique. He/ She will have to produce on the date of Central Registration certificate to that effect in the prescribed format (copy to be given along with the admission offer letter). The admission is subject to his/her being found medically fit. **In the case of PH candidates' minimum disability should be 40%.**

FULL TIME SPONSORED CANDIDATES

Candidates who possess the minimum prescribed qualification and are in service in any of the following establishments shall be eligible for admission to the courses as sponsored students.

- Defense or other ministries of the Government of India or any other Government organization.
- Established industries Research and Development Organization as may be recognized by the Institute from time to time.
- Autonomous public undertakings.
- Universities and recognized technical institutions, which are not covered by the QIP Scheme.

Total intake under this category shall be as indicated in Seat distribution Table for different Post graduate program.

Fee structure shall be different for students admitted under this category, and no scholarship shall be payable to such candidates.

Sponsored candidate must fulfill minimum eligibility criterion and must have

(i)   Minimum two years' experience as on 1st August 2011 from an organization as stated above.

(ii)   Sponsorship certificate needs to be submitted at the time of Interview for admission. "*Sponsorship Certificate*" issued by the employer on their organization's Letter Head, in **format at Annexure- IV available with the application form**.

The sponsored candidates desirous for admission on the basis of CGPA/ percentage of marks in qualifying examination is required to appear for written test and interview to be conducted by respective department/ Admission committee constituted for the purpose as per admission schedule notified. Any candidate under this category shall be admitted, if found suitable.

Admission under this category shall be based on merit calculated with weightage as indicated below:

(i)   Academic Record - 30%,   (ii) Written test - 50% and   (iii)   Interview   - 20%.

Fee Payable at the Time of Admission

As per detailed fee structure for M. Tech./ MURP program above, the candidate admitted in any discipline/ specialization is required to deposit Tuition fee and Development fee as detailed above. The balance fee shall be payable at the time of registration to the program

- ₹ **32,800/-** for full time (GATE Score) candidate.
- ₹ **40,300/-** for full time Sponsored candidate.

Candidates admitted through Institution level counseling are exempted from payment of Admission Processing fee.

Refund of Fees

In case any candidate cancels his/her admission or withdraws from the program before the closing date of admission, then fee shall be refunded fee after deducting processing fee ₹ 1000/-.

No refund of fees shall be admissible/ permissible to candidate, if he/ she withdraw/ cancelled his/ her admission after last date of admission or after registration to the programme. In such cases, only caution money shall be refunded after submission of No Dues from different departments at the end of the semester.

Registration for the Program/ Semester

All students are required to report for Orientation and Central Registration before the commencement of each semester according to the schedule/procedure notified in advance. The students register themselves for the courses in consultation with the Course Coordinator. The curricula, course structure and course under different specialization including rules governing their academic duties and performance are made known to the students advance by the department(s). In some departments the required performance levels may be higher than those given in the Prospectus. The admitted students must acquire a copy of the departmental norms in such cases.

FINANCIAL ASSISTANCE

All candidates admitted in post graduate program under different category with minimum GATE score/ marks as decided by Ministry of HRD, Govt. of India are eligible for Assistantship/ scholarship as per rules.

HOSTEL ACCOMMODATION

The Institute has limited number of seats in three boys' hostels and one girls' hostel. Each hostel is self-contained with amenities such as a reading room, an indoor games room, a lounge and a dining hall with mess.

Due to limited seats in hostels at present hostel accommodation to M. Tech students are not provided. Therefore, candidates admitted are required to make their own boarding and lodging arrangement. Room and seats on rent/ shared accommodations near to the Institute are available for the students.

FEE & OTHER CHARGES FOR Master's M. Tech. and MURP PROGRAMS

S. No.	Details of fee under Different Heads of a/c	Amount (in ₹) Fee to be paid as per periodicity indicated		
		GATE Score	Sponsored	Remarks
1.	Registration Fee	500	500	Per Semester ##
2.	Tuition Fee	**17500**	**25000**	Per Semester
3.	Development Fee	10000	10000	One Time
4.	Examination Fee	650	650	Per Semester
5.	Students Activity Fee	1000	1000	Per annum @
6.	Medical Fee	300	300	Per annum @
7.	Identity Card Fee	100	100	One Time
8.	Admission Processing Fee	500	500	One Time #
9.	Caution Money (**Refundable**)	2000	2000	Onetime on admission
10.	Course Curricula for M. Tech/ MURP Program	250	250	
	Total Fee Payable on admission (In ₹)	**32800**	**40300**	

- To be paid by all students during registration including students admitted in the 1st semester.

@ - To be paid in Autumn (Odd) semester,(i.e. B. Tech/ B. Arch/ M. Tech - 1st, B. Tech/ B. Arch - 3rd, 5th, 8th and B. Arch 9th Semester.)

- Applicable for students admitted to B. Tech/ B. Arch/ M. Tech program including students admitted in 1st semester through CCB.

Note: SC/ ST Students are required to apply for financial assistance/ scholarship and/ or reimbursement of fee deposited at the Institute from Department of Welfare and Empowerment of respective State Government to which they belong.

Fee Structure for candidates Admitted under DASA

	Candidates from Other Countries	Candidates from SAARC Countries
Registration Fee & 1st Yr Fee: Non refundable	US$ 250/ + US$ 4000/	US$ 2400/-
Tuition Fee for subsequent Yr:	US$ 4000/	US$ 2000/-
Hostel Accommodation and other Expenses	Approx US$ 800/- per Annum may vary from Institute to institute	

DEPARTMENT OF ARCHITECTURE

The Department of Architecture in National Institute of Technology (erstwhile Bihar college of Engineering under Patna University, Patna) started in 1979. The Architecture Department offers course at under graduate level (B. Arch with 62 intakes) and Doctoral Programme. The Architecture Department is introducing Master Programme (Master in Urban & Regional Planning) from session 2011-12. The department has produced three Ph.Ds and four research scholars are already registered in the department.

The faculty of the department is of good quality with good academics and research experiences. They are regularly upgrading themselves by attending various courses and presenting papers in national and international conferences/seminars. They are also publishing books and papers in journals.

The department has various laboratories and a reference library for the students. It has a well-equipped computer lab, structures lab, landscape lab and materials lab.

The Department is also giving consultancy service and has recently undertaken the following consultancy projects:

1. Designing of Bhasa Block, Guest-House and Library for Veer Kuer Singh University, Ara.
2. Eco Friendly Campus of Patna Science College.

Apart from these, the department is also handling various consultancy projects for its own institute.

The students of the department are regularly participating in various state level and national level competitions and winning the best of the prize. The students, who have passed out of the department, have done the department proud by reaching good places and are spread all around the globe. The department is showing a fast rising curve with the passing out students getting well placed in reputed firms, organization and institutions.

The vision of the department is to make our earth "Beautiful place to live". The department may contribute towards the society by crating awareness for environmental protection, heritage importance and sustainable development practices by low cost environmental friendly building construction technology

DEPARTMENT OF CIVIL ENGINEERING

Civil Engineering Department is one of the oldest departments of NIT, Patna. This department was found at the inception of the Bihar College of Engineering, which has now been reconstituted as NIT, Patna. The department offers undergraduate degree as well as Master's degree. The master's degree is given in the specializations on Structural Engineering, Transportation Engineering and Water Resources Engineering. It also has a separate center known as Center for Water Resources Studies, which is well known for its research and development in the field of Water Resources Engineering.

The department has Mechanics, Material Testing, Concrete, Water Resources, Hydraulics, Fluid Mechanics, Environmental Engineering and Surveying Laboratories with all latest equipment need for research and development.

Civil Engineering Department keeps a close interaction with the industry and also provides key consultancies to various government and private organization across the country and has a corpus fund of above one crore from this activity alone.

Civil Engineering Department keeps a close interaction with the industry and also provides key consultancies to various government and private organization across the country and has a corpus fund of above one crore from this activity alone. The department generates fund of approx. ₹ 5.0 lakhs per month from non-routine testing and consultancy projects for the institute.

The students of CE Department get placement in companies such as RITES, Gammon India Ltd., IRCON, Punj Lloyd, EIL etc.

Lab Infrastructure:

Name of Lab	List of Major Equipment/ Computers/ Software
Concrete Lab	Compression Testing Machine, Brick Testing Machine, Flexure Testing, Soundness, Machines used for Mix Design etc.
Material Testing Lab	Universal Testing Machine, Hardness, Impact, Torsion Testing Machine, Deflection Measurement etc.
Mechanics Lab	Differential Pulley Block, Worm Wheel, Screw Jack, MI, Reaction at Support etc.
Fluid Mechanics and Hydraulics Lab	Hydraulic Bench for flow visualization, orifice meter, venture meter, Pelton Turbine, Various types of Pumps and Turbine, Viscometer etc.
Transportation Lab	Ben Kelman Beam, Bump integrator, axial load survey, Marshal Stability Test Apparatus, CBR, Field Moisture Density Equipment etc.
Environmental Engineering Lab	Ion Analyzer, AAS, BOD Incubator, Muffle Furnace, Oven, Centrifuge etc.
Soil Mechanics and Foundation Engineering Lab	CBR, Triaxial Testing Apparatus, Direct Shear Test Apparatus, Hydrometer etc.
Geology Lab	Collection of Rock Samples
Surveying Lab	Total Station, Theodolite, Dumpy level etc.
Water Resources Lab	Complete Weather Station, Hydraulic Jump and Hump, etc

Projects and Dissertation:
- Up gradation of Soil Mechanics Lab (Sponsored);
- Water Quality Test Lab Project (Sponsored);
- BRNS Project (Sponsored): "Development of Integrated Software for Design Basis Flood for a Nuclear Power Project Site".
- Over 60 M. Tech. and over 10 Ph.D. Dissertations have been successfully completed by Civil Engineering Department.

Ongoing Research Projects:
- Stability Analysis considering effects in static and dynamic condition for earth dams including instrumentation", Y.P. Singh under Dr. K.S.P. Singh
- "Environmental impact of rives Ganga in State of Bihar with special emphasis to effects near Patna Town", A. Singh under Dr. K.S.P. Singh.
- "Earthquake Resistant Design of Concrete Gravity dam", Chandrashekhar Singh under Dr. V. Singh
- "Rainfall Runoff Modeling", Amit Kumar Sinha under Dr. V. Singh.
- "Integrated water resources management of humid alluvial plains: Case study of Bagmati Basin Complex", Ashok Kumar under Dr. T. Prasad.
- "Optimum Concrete Pavement Concrete Mix Design", Kumari Anima under Dr. U.K. Srivastava.
- "Optimization of Road Network of Patna Urban Area from 2020 AD", Md. Abdullah Sharif under Prof. E.A. Quadri.
- "Integrated Water Resources Management for Regional Economic Development", Rajesh Gupta under Dr. L.B. Roy
- "Suitability Analysis of Bitumen vis-à-vis Strength criteria of Bitumen Mixes based on Tri-axial Test/ Marshall Stability Test at atmospheric Temp conditions.", Rajeev Kumar under Dr. S. Kumar.
- "Needs and strategies for participatory irrigation management in Bihar", I.C. Thakur under Dr. L.B. Roy
- "Finite Element Analysis of R.C. Structural Members", P.N. Thakur under Dr. S.K Sinha.
- "Land use transportation model for medium size cities (A case study of Patna Town), Malti Srivastava under Dr. S. Kumar.
- "Bi-axial RCC Columns", Baboo Rai under Dr. S.K. Sinha

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

The Department of Computer Science & Engineering of NIT Patna was established in the year 2005 with good infrastructure and facilities. The Department offers a B.Tech. Programme in Computer Science & Engineering of eight semesters. The department has dedicated faculties who have been taking classes, research and development work. The department conducts lab. Classes with student: computer ratio of 1:1 of Programming languages such as C, C++, Java, and Oracle 11g and Oracle Data Miner for Data Mining Lab and other open source software for different labs. In future extension the department is going to establish another two laboratories with 40 systems with latest software and tools. All the Laboratories are internally networked through Wi-Fi systems allowing students to remotely access resources at any point in time. A Central Computer Centre of the institute is being developed and become operational from next session.

The department is introducing full time M.Tech. programme in Computer Science & Engineering from the session 2011-12.

The department has already introduced Ph.D. programme from the session 2009-10.

The students of CSE department get placement in Infosys, Sapient, Patni Computers, Capgemini, ITC Infotech, Accenture, Rancore Technology, Belzabar, and etc.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Today the domain of Electronics & Communication Engineering (ECE) has become the main engine of growth of the World Economy and contributes 10% of Total World Produce. The Total World Produce is $ 50 trillion and "Microchips and related services" contribute to $5 trillion worth of market. So Electronics & Communication Department has become the cynosure of all Engineering Colleges. NIT Patna, being an Institute of National Importance, is entrusted with the solemn duty of training best Engineers. This task becomes still more critical and arduous in case of Electronics and Communication Engineering considering the high rate of obsolescence in this field. So it is of utmost importance that M.Tech and Ph.D. programme be initiated in order that we are actively engaged in research in Frontier Areas of Electronics & Communication Engineering and in the process the Department remains updated with the state of art in its respective field. At present, in Bihar, no Institute offers M. Tech. programme in ECE, as a result number of students from Bihar have to go outside the state for Post graduate and Doctoral level degree in ECE and hence lakhs of money drain out of the state. Under such circumstances M.Tech & Ph.D. course is the crying need of ECE Department at NIT, Patna.

The department of Electronics Department has been conducting under-graduate program since 1978 and also provides support in conducting core courses for other departments. The department has been updating courses according to the changing scenario in the Field of Electronics and Communication, thus Optical Fiber Communication, Computer Communication, Digital Signal Processing and Digital Communication were introduced in the regular curriculum. The department also introduced course as per new developments in embedded technology and applications of microcontroller.

Final year students are encouraged to take challenging Projects on recent areas electronic and communication applications, such as CDMA Communication Systems, Flat Panel Display, Curve Tracers, Quadrature Oscillators, FPGA, Microcontrollers etc. Students are encouraged to use Cadence and MatLab software for analog and digital circuit designs for analysis by simulation.

Introduction of Post-graduate and Doctoral Programs will provide basic platform for research activity and will strengthen input for other programs such as fellowship/projects, technology incubation programme and development of niche application areas. It is also proposed to

introduce a new curriculum both at UG & PG levels in the field of Deep Space Communication Network.

M. Tech. in Communication System: The convergence of Computer and Communication has made Communication Engineering Field the most rapidly developing and expanding field. By 2011 it is expected that total World Mobile subscribers will be 5 billion out of 7 billion world population. Today Mobile Communication is growing at 100% per year growth rate in India. In 2002 there were 10m mobile phone subscribers in India. Today there are 400m subscribers in India. This is when the rural area remains by and large untapped. These statistics indicates that Mobile Communication is the fastest developing sector. *"The rollout of mobile broadband networks will create hundreds of thousands of jobs, encourage new businesses across the value chain, improve productivity and boost consumer spending."* *[Mobile Communications is Uniquely Placed to Drive Economy Growth, 16 February 2009, Barcelona, Spain]*

M. Tech. in VLSI System Design & Microelectronics: In Vacuum Tube era application of Electronics was confined to Telecommunication, Radio and TV. But the advent of Solid State Technology and Devices after 1949 has led to multidimensional growth of Electronics so much so that it has ushered in the Post-Industrial Society and triggered the third Information Revolution. In Industrial Society, steel was the staple of society and Mechanical Engineering Department occupied the premier position. In Post-Industrial Society, silicon has become the staple of society and Electronics Engineering occupies the premier position. Today microchips have invaded every nook and corner of common man's life. These micro-scale and now nano-scale devices find wide applications from Defense to Health Care. This fuels the burgeoning demand of microchips   and hence the demand of Microchip designer is all the time outstripping the supply of Microchip designer. The constant supply of increasing number of microchip designers has become the urgent need of the times. It is in this perspective that M. Tech and Ph. D programme in VLSI System Design & Micro-electronics has to be seen.

These programmes are advanced level courses in the field of Communication Engineering and VLSI System Design & Micro-electronics, offering a specialization in terms of technology and applications to fulfill the requirements of the industry.

Proposed Planning up to 2020
1. In next 10 years, the following laboratories will have to be strengthen namely:
- Optical Fiber Communication Lab
- Analog Communication Lab
- Digital Communication Lab
- Computer Communication Lab
- Micro-controller, Embedded System & Robotics
- Software tools such as NETSIM, LABVIEW & MATLAB to be introduced in the communication related labs.

2. In integrated circuit technology area, the following labs will be introduced and strengthened.
- Material & Device testing and characterization lab
- Device simulation lab
- VLSI System Design & Microelectronics Fabrication lab-I
- VLSI System Design & Microelectronics Fabrication lab-II
- Software tools such as SUPREM3-1D, SUPREM – 2DIV.GS-1D, XILINX, MODELSIM & MICROWIND to be introduced in the VLSI System Design & Microelectronics related labs.

DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering was established in 1945 under Patna University with an intake of 30 students leading to Bachelor of Engineering degree of four year duration. The four year course was later changed to five year integrated course in 1960 and it continued up to 1972. Again four year course was introduced in 1972 with the same intake capacity of 30 students. The intake was increased from 30 to 40 students in 2005-06 session and further in 2006-07 the intake capacity has been increased to 60 students.

In the year 1978 AICTE approved Post Graduate (PG) course leading to M. Sc. (Engg) Degree in two specializations: (i) Power System Engineering and (ii) Control System Engineering with an intake capacity of 10 in each specialization. The intake in PG program was further increased to 18 students per specialization in 2004-05.

The Microprocessor Laboratory and Power electronics laboratory were setup to meet the requirement of course curriculum and research activity. The advancement and application of electronics and microcomputer in the field of electrical engineering necessitated a major revision of the syllabus for the UG program in 1977. A course in Microprocessor was introduced along with many subjects in electronics leading to orientation required for the modern technology, such as Analog Electronics, Digital Electronics, Introduction to Communication and Digital Signal Processing.

The laboratory under this department includes Electrical Machines, Basic Electrical Engg., Network Theory, Signals & Systems, Instrumentation, High Voltage Engg., Microprocessor, Switchgear & protection labs. All labs are equipped with machines and instruments to meet the requirement of UG and PG course Curriculum as well as research & development work being under taken by students and faculty.

The department has a Computer Lab with all hardware and software facilities to meet the requirements of system modeling and analog and digital circuit simulation. The department has Analog and Digital Circuit Simulation software for analysis, PCB layout, MATLab software for modeling, simulation of signals and systems and ETAP for study of power distribution and fault analysis. The department has all computers under local area network. The wireless LAN facilitates access of software from any place in the campus by the students and faculties.

The electrical engineering department has well qualified faculty, majority of them are with Ph. D and M. Tech degree with specialization in the field of electrical power, control system and microcomputer based instrumentation & control. The department has well qualified panel of visiting faculty from academics and industry. They visit to the department at regular interval to deliver expert lectures and discuss recent trends in the field of Electrical Engg, Power system - generation, transmission and distribution, Thyristorised controlled electrical drives used in industry, microcomputer applications in instrumentation and control etc.

In recent past, the faculty and students of the department have many publications in journals and conferences (Approx. Forty). Many books on different electrical engineering subjects have been authored by the faculties of the department. Till date the department has produces five Ph. Ds and three candidates are enrolled under Patna University.

The aim of the department is to equip the different labs for modern course curriculum in the field of engineering & technology. In order to carryout research, development and consultancy work in active participation with the industry. The department is in process of establishing labs for computer based process control and digital signal processing. The high voltage lab is likely to be upgraded soon.

DEPARTMENT OF MECHANICAL ENGINEERING

Department of Mechanical Engineering of NIT Patna (erstwhile B.C.E. Patna) started in 1948 with undergraduate programme. Post graduate programme in Mechanical Engineering was started in 1978 with specialization in "Thermal Turbo machines" and "Refrigeration, Air-conditioning and Heat Transfer". At UG level yearly system was followed while in PG programme, semester system was followed. Before 2007-08, for undergraduate programme B.Sc. Engg. Degree and for Post Graduate programme M.Sc. Engg. Degrees were awarded to students by Patna University. Ph.D. programme are also running but presently it is on part time basis. Now onwards from 2007-08 regular Ph.D. programme will run in the Department. From the academic year 2007-08 department is going to follow semester system and degree will be awarded at UG and PG level in B. Tech. and M. Tech. respectively department is well equipped with the adequate facilities for teaching of fundamentals as well as for carrying out research activity. The department has dedicated and able faculty who are capable of taking up any type of research and developmental work.

The department has well equipped Refrigeration and Air conditioning, Heat Transfer, Dynamics of Machinery and Control & measurement lab. The department has all modern facility for CAD/ CAM application and separate Metrology Lab.

Department of Mechanical Engineering is actively involved in interaction with public and private sector industry/ Institutions such as BREDA, IE(India), Patna University Industrial Safety Management course etc.

FACULTY PROFILE:

Dept.	Name	Designation	Qualification	Area of Specialization
ARC	Dr. Manoj Kumar	Assoc. Prof.	Ph. D., MURP (Roorkee)	Urban & Rural Planning, Architecture
ARC	Dr. Fulena Rajak	Assoc. Prof.	Ph. D., B. Arch	Architecture
ARC	Kamini Sinha	Asstt. Prof.	M. Arch (Conser.) SPA, B. Arch	Architecture and conservation
ARC	Dr. Bijay Kr. Das	Asstt. Prof.	Ph. D., MCP (IITKgp), B. Arch	City Planning & Architecture
ARC	Shailendra Kumar Mandal	Asstt. Prof.	MCP (IITKgp),, B. Arch	City Planning & Architecture
ARC	Mazharul Haque	Asstt. Prof.	M. Arch (Roorkee), B. Arch	Architecture
ARC	Anjali Sharma	Asstt. Prof.	MCP (IITKgp),, B. Arch	City Planning & Architecture
ARC	Ajay Kumar	Asstt. Prof.	MCP (IITKgp),, B. Arch.	City Planning & Architecture
ARC	Ravish Kumar	Asstt. Prof.	M. Tech (Building Sc. & Tech.)- (Roorkee), B. Arch.	Architecture & Building Science
ARC	Dr. B. N. Prasad	Visiting Faculty	Ph.D, M. Tech. (Regional Planning) (IITKgp), MA (Sociology, Economics)	Socio-economic Planning and Regional Planning
ARC	A. K. Bhanu	Visiting Faculty	MURP (Roorkee), B. Arch	Urban & Rural Planning, Architecture
ARC	V. Raman	Visiting Faculty	B. Arch	Architecture
ARC	Ramjee Prasad	Visiting Faculty	B. Arch	Architecture
CIV	Dr. K.S.P. Singh	Professor	Ph.D.	Soil Mechanics & Foundation Engineering
CIV	Dr. Surendra Kumar	Professor & Head	Ph. D	Urban Planning & Development
CIV	Dr. L.B. Roy	Assoc. Prof.	Ph. D	Water Resources Engineering and Geo Technical Engg.
CIV	Dr. Vivekanand Singh	Assoc. Prof.	Ph. D	Hydraulic & Water Resources Engineering

Dept.	Name	Designation	Qualification	Area of Specialization
CIV	Mr. Sanjeev Kr. Sinha	Assoc. Prof.	M. Tech.	Soil Mechanics
CIV	Dr. S. S. Mishra	Assoc. Prof.	Ph. D.	Structural Engineering
CIV	Mr. S.K. Singh	Asstt. Prof.	B. Tech	-
CIV	Mr. Sanjay Kumar	Asstt. Prof.	B. Tech	-
CIV	Dr. N. S. Maurya	Asstt. Prof.	Ph. D	Environmental Engineering
CIV	Mr. Anshuman Singh (On Study Leave)	Asstt. Prof.	M. Tech.	Environmental Engineering
CIV	Mr. S.K. Suman	Asstt. Prof.	M. Tech	Transportation Engineering
CIV	Mrs. Sunita Kumari	Asstt. Prof.	M. Tech	Geotechnical Engineering
CIV	Mrs. Reena Singh	Asstt. Prof.	M. Tech.	Environmental Engineering
CIV	Mr. S. K. Murmu	Asstt. Prof.	M. Tech.	Water Resources Engineering
CIV	Mr. Baboo Rai	Asstt. Prof.	M. Tech.	Structural engg.
CIV	Dr K. P. Singh	Professor (Contractual)	Ph. D	Transportation Engg.
CIV	Dr Y. Prasad	Professor (Contractual)	Ph. D	Structural Engg.
CIV	Dr U. K. Srivastava	Professor (Contractual)	Ph. D	Structural Engg.
CIV	Dr S. K. Sinha	Professor (Contractual)	Ph. D	Structural Engg.
CSE	Dr. Narayan Vikas	Professor	Ph. D (St Fraser University, Canada)	Graph Theory
CSE	Md. T. U. Haider	Asstt. Prof.	M. Tech.	E learning
CSE	Dr. M. P. Singh	Asstt. Prof.	Ph. D.	Wireless Sensor Networks
IT	Mr. Prabhat Kumar	Asstt. Prof.	M. Tech. (IT)	Wireless Sensor Networks
ECE	Bijay Kumar Sharma	Assoc. Prof.	Ph.D (Univ. of Maryland); M.S (Stanford); B.Tech.(Hons) IIT-Kgp	Micro-Electronics and Integrated Circuits & Systems;
ECE	Rabindra Kumar	Assoc. Prof.	M.Tech (IT,BHU), B.Sc.(Engg)	Microwave & EM Theory
ECE	Muhammed Abdul Mujeeb	Asstt. Prof.	M.Sc. (Engg), (Controls), P.G.Dip(Computer Sc)-AMU, B.Sc (Engg) (AMU)	Digital Electronics & Computer
ECE	Ritesh Kumar Mishra	Asstt. Prof.	M.Tech (ECE) Burdwan University, BE (Electronics)	Communication System
ECE	Bikash Chandra Sahana	Asstt. Prof.	ME (ECE), BE(ECE)	Digital Signal Processing
ELE	Dr. Girish Kumar Choudhary	Professor& Head	Ph. D	Power System & Control
ELE	Dr. Madan Mohan Choudhary	Professor	Ph. D, M. Tech	Power System & Control
ELE	Dr. Uday Shankar Triar	Professor	Ph. D, M. Sc. (Engg)	Microcomputer application, Power Electronics, Instrumentation & Control
ELE	Mr. Vidya Sagar	Assoc. Prof.	M. Tech	Electronics & Communication
ELE	Mr. Anil Kumar Sahani	Assoc. Prof.	M. Sc. (Engg)	Power System & Control
ELE	Dr. Ramesh Kumar	Assoc. Prof.	Ph. D, M. Sc. (Engg)	Microprocessor & control
ELE	Mr. Ravindra Kumar	Assoc. Prof.	M. Tech	Electronics & Communication
ELE	Dr. Sambhu Nath Verma	Asstt. Prof.	Ph. D.	Power System
ELE	Mrs. Jayanti Chudhary	Asstt. Prof.	M. Tech.	Power Electronics & Drives Control
ELE	Mr. Alok Ranjan	Asstt. Prof.	M. Tech.	Power System
ELE	Dr. Rajendra Prasad	Professor (Contractual)	Ph. D, M. Tech	Instrumentation & Control system

Information Brochure Post graduate Program 2011, NIT Patna

Dept.	Name	Designation	Qualification	Area of Specialization
ELE	Dr. H. K. Singh	Professor (Contractual)	Ph. D	Power Electronics & Drive control
ELE	Mr. Abinash Chandra Sinha	Professor (Visiting)	M. Sc. (Engg)	Power system
ELE	Mr. M. H. Imam	Professor (Visiting)	M. Tech, MBA	Electrical Power and Management
ELE	Mr Nasir Jamal	Professor (Visiting)	M. Sc. (Engg)	Power system, Microprocessor
ELE	Ms Amrita Sinha	Professor (Visiting)	M. Tech	Power Electronics & Electrical Drives
ELE	Ruchi Agarwal	Professor (Visiting)	M. Tech.	Control System, Microprocessor
MEC	Prof Narendra Kumar	Professor	M. Tech	Thermal Engg
MEC	Prof. Sudarshan Singh	Professor & Head	Ph.D.	Thermal Engg
MEC	Prof. S. J. Hasnain	Professor	M. Tech	Design Engg
MEC	Prof. S.K. Singh (on lien)	Professor	Ph.D.	Thermal Turbo Machine
MEC	Mr. S.S. Prasad	Assoc. Prof.	M Tech	Design Engg
MEC	Dr. S.K. Verma	Assoc. Prof.	Ph. D.	Thermal Engg
MEC	Dr. Om Prakash	Assoc. Prof.	Ph.D.	Thermal Engg, Power Plant Engg., Heat Transfer
MEC	Dr. Amar Nath Sinha	Assoc. Prof.	Ph.D.	Manufacturing
MEC	Mr. M.N. Pandey	Asstt. Prof.	M. Sc. Engg	Thermal Engg
MEC	Mr. Amit Kumar	Asstt. Prof.	M. Tech	CIDM
MEC	Mr. Shahid Mahmood	Asstt. Prof.	M. Sc. Engg	Ref., Air Cond. & Heat Transfer
MEC	Mr. Arun Kumar	Asstt. Prof.	M. Tech	Thermal Engg.
MEC	Mr. Anil Kumar Das	Asstt. Prof.	M. Tech	Manufacturing Science
MEC	Dr. S. N. Sinha	Professor (Contractual)	Ph. D.	Thermal Engg
MEC	Dr S. P. Sinha	Professor (Contractual)	Ph. D.	Thermal Engg
MEC	Dr R. K. Jha	Professor (Contractual)	Ph. D.	Thermal Engg
MEC	Prof N K Prasad	Professor (Contractual)	M Tech	Machine Design
MEC	Dr. S. N. Lal	Professor (Contractual)	Ph. D.	Thermal Engg

GENERAL GUIDELINES & IMPORTANT INSTRUCTIONS REGARDING SUBMISSION OF APPLICATION:

The selection for all categories of students and for different specialization/ seats is done by the institution through Institution Level Counseling organized centrally. Candidates are required to apply for M. Tech program on prescribed application.

1. The application form is available on Institution website www.nitp.ac.in may be downloaded.

2. Separate application form must be used for each Department, in case a candidate is desirous to be considered for admission in other departments/ Specialization also.

3. The minimum eligibility criteria indicated above for each specialization of master's degree programme is only an enabling clause. The Department may fix higher criteria at the time of short listing keeping in view the number of candidates etc. The applications will be scrutinized by the admission committee..

4. The selection of Physically Handicapped candidates will be held centrally as per rules and direction of Govt. of India., They are required appear before Institute's Medical Board for final approval, before admission is confirmed

5. Application incomplete, in any respect, is liable to be rejected. The decision of the admission committee in this respect shall be final.

6. No column should be left blank. Write "**Not Applicable**" against a column if the same does not apply to you.

7. Tick (☐) the relevant box wherever provided.

8. No TA/ DA shall be paid to the candidates coming for M. Tech admission or to attend written test/ interview.

9. **Sponsored candidates must submit NOC/ Sponsorship Certificate from their employer at the time of interview, else they will not be allowed.**

10. **Filling of false information will lead to Cancellation of Admission.**

11. *Admission Application Fee must accompany Bank draft of ₹ 800/- for General/ OBC Category and ₹ 500/- for SC/ ST/ PH category in favour of "NATIONAL INSTITUTE OF TECHNOLOGY PATNA" payable at Patna.*

12. *The Bank draft No and date of issue must be mentioned by the candidate in the appropriate column while submitting the completed application form.*

13. *Candidate must write on top of the envelope "**Admission to M. Tech/ MURP Program - 2011 for Civil/ Elect/ Mech./ ECE/ CSE/ ARCH**" and be sent by Registered post/ Speed post/ Currier service. The filled in application form with self-attested photocopies of the relevant documents may also be submitted directly in Academic Section by hand/ messenger.*

14. *Application for admission **must reach to The Assistant Registrar (Admission), Academic Section, National Institute of Technology Patna, Patna – 800005 by last date as notified.***

15. *Application for admission shall not be received by hand or at Institution Counter.*

16. National Institute of Technology Patna reserves the right to make any change in any provisions declared in this information procedure. In case Ministry of Human Resource Development, Govt. of India or any other Competent Authority makes any changes in the admission procedure/ reservation policy or any other matter related to admission shall be binding on all and shall be applicable with effect from the approval of the senate and BOG of NIT Patna.

17. Self-attested Photocopies of following documents must be enclosed and Original Certificates/ Documents must be produced at the time of admission for verification : -

(i)	Demand Draft for Admission/ Application Fee of amount as per information Brochure	Must be submitted with application form
(ii)	GATE Score/ Rank Card	
	Sponsorship Certificate (for Sponsored Category candidate only)	
(iii)	Certificate of Category (OBC/ SC / ST/ PH), if applicable, Issued by the competent authority	
(iv)	Income certificate for OBC candidates stating the Candidate's Parent do not belong to Creamy Layer as per directive of the MHRD	
(v)	Certificate for Physically handicapped	
(vi)	Qualifying Examination Marks Sheet/ Grade Card	
(vii)	Four Photographs identical to the one Pasted on the application form	Must be submitted at the time of admission Counseling
(viii)	Class X (High School) Board Certificate as proof of date of birth	
(ix)	Qualifying Examination Passing Certificate	
(x)	Migration Certificate from the University/ Deemed University/ Institute Last attended	
(xi)	Tuition fee and Development fee Demand Draft as per information Brochure	

ANNEXURE – I
Academic Calendar 2011-12

ACTIVITY	PROGRAM	SEMESTER	Academic Activity dates	REMARKS
AUTUMN (ODD) SEMESTER Session 2011-12				
Program Registration	B. Arch/ B. Tech	1st Semester	**To be done along with Physical reporting**	**As per CCB -2011**
	B. Arch/ B. Tech	All Semesters **(Except 1st Sem)**	**25th & 26th July 2011** (Mon-Tue)	Late Registration with fine allowed up to next Three working days from last registration date.
	M. Tech.	1st Semester	**25th & 26th July 2011** (Mon-Tue)	
	M. Tech.	3rd & 4th Semester	**25th & 26th July 2011** (Mon-Tue)	
Start of Classes	B. Arch/ B. Tech/ M. Tech	All Semesters **(Except 1st Sem)**	**27th July 2011** (Wed)	From Next Working Day after Registration
Orientation Program	B. Arch/ B. Tech	1st Semester	**As per CCB -2011**	Registration slip & I Card to be distributed
Start of Classes	B. Arch/ B. Tech	1st Semester	**As per CCB -2011**	
	M. Tech	1st Semester	**27th July 2011** (Wed)	
Mid Semester Examinations	B. Arch/ B. Tech./ M. Tech	All Semesters	26th Sept to 4th Oct 2011 (Mon to Tues)	
Convocation - Session 2010-11	B. Tech, B. Arch and M. Tech	All Graduating in 2011	September/ October 2011	
Fresher's Welcome	B. Arch/ B. Tech	1st Semester	21st Oct 2011 (Fri)	
End of Regular Classes	B. Arch/ B. Tech./ M. Tech	All Semesters	25th Nov 2011 (Fri)	
Extra make up Classes	B. Arch/ B. Tech./ M. Tech	All Semesters	28th Nov to 30th Nov 2011 (Mon - Wed)	Attendance record and Sent up list to be notified by the Department(s)
Submission of Attendance Record	B. Arch/ B. Tech./ M. Tech	All Semesters	1st Dec 2011 (Wed)	**Last date**
End Semester Exam (Including Practical Exam)	B. Arch/ B. Tech./ M. Tech	All Semesters	2nd Dec to 16th Dec 2011 (Fri to Fri)	
Submission of Performa – V & Practical Marks	B. Arch/ B. Tech./ M. Tech	All Semesters	7th Dec 2011 (Wed)	**Last date**
Answer book Evaluation & Tabulation	B. Arch/ B. Tech./ M. Tech	All Semesters	19th to 27th Dec 2011 (Mon – Tue)	
Dissertation Pre-submission Seminar/ Viva Voce	M. Tech.-Dissertation	3rd and 4th Semester	28th to 30th Nov 2011 (Mon - Wed)	*M. Tech student having Registration Continuation beyond 4th semester of the Program as per rules are also eligible*
Dissertation Examination	M. Tech	4th Semester	19th to 23rd Dec 2011 (Mon – Fri)	
PEC Meeting	B. Arch/ B. Tech	All Semesters	29th Dec 2011 (Thu)	
	M. Tech	All Semesters	29th Dec 2011 (Thu)	
Publication Of Result	B. Arch/ B. Tech	All Semesters	30th Dec 2011 (Fri)	
	M. Tech	All Semesters	30th Dec 2011 (Fri)	
Inter Semester Break	**B. Arch/ B. Tech** (Except M. Tech)	**All Semester Students**	**19th to 30th Dec 2011 (Mon to Fri)**	

Information Brochure Post graduate Program 2011, NIT Patna

ACTIVITY	PROGRAM	SEMESTER	Academic Activity dates	REMARKS
SPRING (EVEN) SEMESTER Session 2011-12				
Program Registration	B. Arch/ B. Tech/ M. Tech	All Semesters	2nd and 3rd Jan 2012 (Mon – Tues)	Late Registration with fine allowed till next Three working days from last date of registration
	M. Tech.	2nd, 3rd & 4th Semester	2nd and 3rd Jan 2012 (Mon – Tues)	
Start of Classes	B. Arch/ B. Tech./ M. Tech	All Semesters	4th Jan 2012 (Wed)	From Next Working Day After Registration
NITP Tech Fest		Dates to be notified later		
Annual Sports & Athletic Meet and Cultural Festival		**21nd to 27th Jan 2012 (Sat-Fri)**		**Classes shall remain Suspended**
NITP Foundation Day		**28th Jan 2012 (Sat)**		
Mid Semester Examinations	B. Arch/ B. Tech./ M. Tech	All Semesters	12th to 20th Mar 2012 (Mon - Tues)	**Holi Festival on 8th Mar 2012 (Thursday)**
End of Regular Classes	B. Arch/ B. Tech./ M. Tech	All Semesters	20nd April 2012 (Fri)	
Extra make up Classes	B. Arch/ B. Tech./ M. Tech	All Semesters	23rd to 25th April 2012 (Mon - Wed)	Attendance record and Sent up list to be notified by the Department(s)
End Semester Exam (Including Practical Exam)	B. Arch/ B. Tech./ M. Tech	All Semesters	27th April to 11th May 2012 (Fri to Fri)	
Submission of Performa – V & Practical Marks	B. Arch/ B. Tech./ M. Tech	All semesters	2nd May 2012 (Mon)	Last date - Except Project & Dissertation
Dissertation Pre-submission Seminar/ Viva- Voce Exam.	M. Tech.- Dissertation	4th Semester	Up to 10th May 2012 (Thu)	
Answer book Evaluation	B. Arch/ B. Tech./ M. Tech	All Semesters	15th to 24th May 2012 (Tue to Tue)	
Project Viva Voce	B. Arch/ B. Tech	8th & 10th Semester respectively	Up to 25th May 2012 (Fri)	
Submission of final Marks for project	B. Arch/ B. Tech	10th & 8th Semester respectively	25th May 2012 (Fri)	
Last date: **Dissertation submission**	M. Tech.-	4th Semester	28th May 2012 (Mon)	*No further Dissertation will be accepted*
PEC Meeting	M. Tech	All except 4th Semester	29th May 2012 (Tue)	
	B. Arch/ B. Tech	All Semesters	29th May 2012 (Tue)	
Publication of Result	B. Arch/ B. Tech	All Semesters	30th May 2012 (Wed)	
	M. Tech	2nd Semester	30th May 2012 (Wed)	
Dissertation Examination	M. Tech.	4th Semester	Up to 8th June 2012 (Fri)	Subject to examiner's Confirmation
Summer Break	B. Arch/ B. Tech (Except M. Tech)	For all Students	**14th May to 20th July 2012**	Final Semester Students after Project Viva
Summer Training	**B. Tech**	**6th Semester**	**Four/ Six weeks Industrial/ Vocational Training**	

Information Brochure Post graduate Program 2011, NIT Patna

ACTIVITY	PROGRAM	SEMESTER	Academic Activity dates	REMARKS
Summer Quarter:	Course registration	All Courses	**31st May 2012 (Fri)**	Summer Quarter Courses offered shall be as per Regulation Only
	Start of Class	All Courses	**4th June to 13th July 2012**	
Special Examination	B. Arch/ B. Tech./ M. Tech	All Semesters	16th to 23rd July 2012 (Mon- Mon)	Including Summer Quarter courses examination.
Answer book Evaluation Special exam	B. Arch/ B. Tech./ M. Tech	All Semesters	19th to 25th July 2012 (Thu to Wed)	
PEC meeting:	B. Arch/ B. Tech./ M. Tech.	All Semesters	27th Jul 2012 (Fri)	**Special Examination**
Special Examination results	B. Arch/ B. Tech./ M. Tech.	All Semesters	27th Jul 2012 (Fri)	
M. Tech Dissertation Result	M. Tech.	4th Semester	27th Jul 2012 (Fri)	
Ph. D Course Result	Ph. D.	1st & 2nd Semester	27th Jul 2012 (Fri)	
Convocation - Session 2011-12	B. Tech, B. Arch and M. Tech	All Graduating in 2012	September/ October 2012	
AUTUMN (ODD) SEMESTER Session 2012-13				
Program Registration	B. Arch/ B. Tech/ M. Tech	All Semesters **(Except 1st Sem)**	**23rd & 24th July 2012** (Mon-Tue)	Except 1st semester
	B. Arch/ B. Tech/ M. Tech	1st Semester	As per CCB -2012/ and M. Tech Common admission Schedule	
Start of Classes	B. Arch/ B. Tech./ M. Tech	All Semesters **(Except 1st Sem)**	**25th July 2012** (Wed)	

Master's Program Course & Credits requirement for Award of Degree

Program	Semesters	Courses	Credit to be offered
Master's Degree **with different Specializations**	1st	Core Course	20 to 25
	2nd	Core and Electives Course	20 to 25
	Minimum Credits to be earned at the end of 2nd semester to be eligible to start Dissertation Work		45
	3rd	Seminar and Dissertation (To be continued in 4th semester)	10
	4th	Seminar and Dissertation	15
	Minimum Credits to be earned at the end of 4th semester to be eligible for award of Degree with minimum CGPA of 6.0		70

Course Structure for M. Tech (Elect. Engg.)

Program Code	Semester	Course Code	Subject	L	T	P	Credit
EEPG	1		Core Subject – I	3	0/1	0/ 3	4/5
EEPG	1		Core Subject – II	3	0/1	0/ 3	4/5
EEPG	1		Elective - I	3	0/1	0/ 3	4/5
EEPG	1		Elective – II	3	0/1	0/ 3	4/5
EEPG	1		Elective – III	3	0/1	0/ 3	4/5
			Total	16	5	3	20/ 25*
EEPG	2		Core Subject – III	3	0/1	0/ 3	4/5
EEPG	2		Core Subject – IV	3	0/1	0/ 3	4/5
EEPG	2		Elective – V	3	0/1	0/ 3	4/5
EEPG	2		Elective – VI	3	0/1	0/ 3	4/5
EEPG	2		Elective – VII	3	0/1	0/ 3	4/5
			Total	16	5	3	20/25*
Total Minimum Credit offered combining 1st & 2nd semester will not be less than 45							
EEPG	3	EE 2391	Seminar	0	0	3	2
EEPG	3	EE 2390	Dissertation *(To Continue in 4th Semester)*	0	0	12	8
EEPG	3		Total				10
EEPG	4	EE 2493	Seminar	0	0	3	2
EEPG	4	EE 2494	Dissertation	0	0	20	13
EEPG	4		Total				15

Core Subjects (Choose any two in 1st and 2nd Semester)
Core Courses may also be taken as elective subject if not offered as core subject earlier.

S. N.		Course Code	Course Title	L	T	P	Credits
1		EE 2x10	Power Electronics	3	0	3	5
2		EE 2x16	Modern Control Theory	3	0	3	5
3		EE 2x19	Modern Control Theory	3	1	0	4
4		EE 2x20	Digital Control System	3	1	0	4
5	**Specialization :** Control System	EE 2x21	Stochastic Process	3	1	0	4
6		EE 2x22	State Estimation	3	1	0	4
7		EE 2x23	Optimal Control Theory	3	1	0	4
8		EE 2x24	Non-linear Control System	3	1	0	4
9		EE 2x25	System Identification	3	1	0	4
10		EE 2x26	System Modeling and Model Order Reduction Technique	3	1	0	4
11		EE 2x35	Control System Design	1	0	3	3
12		EE 2x47	Industrial Drives & Control	3	1	0	4

Information Brochure Post graduate Program 2011, NIT Patna

S. N.		Course Code	Course Title	L	T	P	Credits
1		EE 2x10	Power Electronics	3	0	3	5
2		EE 2x15	Power System Design	1	0	3	3
3		EE 2x31	Computer Aided Power System Analysis	3	1	0	4
4		EE 2x32	Advanced Electrical Machine	3	1	0	4
5	**Specialization :** Power System	EE 2x34	EHV Power Transmission	3	1	0	4
6		EE 2x39	Modern Power System Operation & Control	3	1	0	4
7		EE 2x46	High Voltage Engineering	3	0	3	5
8		EE 2x47	Industrial Drives & Control	3	1	0	4
9		EE 2x48	HVDC Power Transmission	3	1	0	4
10		EE 2x49	Power System Dynamics	3	1	0	4
11		EE 2x50	Power System Protection	3	0	3	5
12		EE 2x51	Power Plant Engineering	3	1	0	4
13		EE 2x53	Power System Planning & Reliability	3	1	0	4

Elective Subject (Choose any three in each 1st and 2nd Semester)

Core Courses may also be taken as elective subject if not offered as core subject earlier.

S. N.	Course Code	Course Title	L	T	P	Credits
1	CS 2x01	Object Oriented Programming	3	0	3	5
2	CS 2x06	Data Base System	3	1	0	4
3	CS 2x14	Computer Networks	3	0	3	5
4	CS 2x28	Advance Computer Architecture	3	1	0	4
5	EC 1x09	Electronic Instrumentation	3	0	3	5
6	EC 2x08	Intelligent Instruments	3	0	3	5
7	EC 2x13	Digital Signal Processing	3	0	3	5
8	EC 2x71	VLSI Design	3	1	0	4
9	EE 2x10	Power Electronics (PG)	3	0	3	5
10	EE 2x18	Microprocessor & Microcontrollers	3	0	3	5
11	EE 2x35	Control System Design	3	0	3	5
12	EE 2x37	Computer Aided Machine Design	3	0	3	5
13	EE 2x39	Modern Power System Operation & Control	3	1	0	4
14	EE 2x41	Fuzzy Logic Control	3	1	0	4
15	EE 2x42	Neural Network System	3	1	0	4
16	EE 2x43	Switched Mode Power Converter	3	0	3	5
17	EE 2x45	Microcontroller & its Application	3	0	3	5
18	EE 2x47	Industrial Drives & Control (PG)	3	1	0	4
18	EE 2x48	Industrial Drives & Control (PG)	3	0	3	5
20	EE 2x62	Fuzzy Logic Design	3	0	3	5
21	EE 2x64	Active Network	3	1	0	4
22	EE 2x66	Advanced Microprocessor	3	0	3	5
23	EE 2x69	Computer Aided Control System Design	3	0	3	5
24	EE 2x70	Neural Network and Application	3	0	3	5
25	MA 2x10	Applied Mathematics	3	1	0	4
26	MA 2x11	Operational Research	3	1	0	4
27	ME 2x33	Robotics and Robot Applications	3	1	0	4

Course Structure for M. Tech (Civil Engg.)

Program Code	Semester	Course Code	Course Title	L	T	P	Credits
CEPG	1		Core Subjects – *five Papers from the list of Core Subjects*	3	1	0	4 x 5
CEPG	1	CE 2108	Civil Engg Lab – I (Compulsory)	0	0	4	3
CEPG	2		Elective subjects as per specialization – *five papers from the list of Elective subjects as per specialization*	3	1	0	4 x 5
CEPG	2	CE 2209	Civil Engg Lab – II (Compulsory)	0	0	4	3
CEPG	3	CE 2318	Seminar	0	0	3	2
CEPG	3	CE 2319	**Dissertation (to continue in 4th Semester)**	0	0	12	8
CEPG	4	CE 2420	Seminar	0	0	3	2
CEPG	4	CE 2490	**Seminar & Dissertation**	0	0	20	13

S. No	Core/ Elective Courses	Sem	Course Code	Course Title	L	T	P	Credits
	M. Tech. (Civil Engg.) CORE SUBJECTS (Compulsory)							
	(20-25 Credits to be taken)							
1.	Core	1	CE 2101	System Analysis and Optimization Techniques	3	1	0	4
2.	Core	1	CE 2102	Construction Technology	3	1	0	4
3.	Core	1	MA 2106	Advance Numerical Methods and Computational Techniques	3	1	0	4
4.	Core	1	MA 2107	Probability and Statistics	3	1	0	4
5.	Core	1	MA 2108	Engineering Mathematics	3	1	0	4
6.	Core	1	CE 2108	Civil Engg Lab –I	0	0	4	3
7.	Core- STR	1	CE 2104	Theory of Elasticity and Plasticity	3	1	0	4
8.	Core- TRS	1	CE 2103	Soil Properties and Foundation	3	1	0	4
9.	Core- TRS	1	CE 2106	Urban Geography and Transportation	3	1	0	5
10.	Core- WRS	1	CE 2105	Advanced Fluid Mechanics	3	1	0	4
11.	Core	2	CE 2209	Civil Engg Lab – II	0	0	4	3
	M. Tech. (Civil Engg.) ELECTIVE SUBJECTS							
12.	EL- STR	2	CE 2223	Theory of Plates and Shells	3	1	0	4
13.	EL- STR	2	CE 2226	R.C. Structures	3	1	0	4
14.	EL- STR	2	CE 2227	Advanced Structural Analysis II	3	1	0	4
15.	EL- STR	2	CE 2228	Structural Stability	3	1	0	4
16.	EL- STR	2	CE 2229	Steel Structure Design	3	1	0	4
17.	EL- STR	2	CE 2230	Design of Bridges	3	1	0	4
18.	EL- STR	2	CE 2232	Advance Soil Properties and Foundation	3	1	0	4
19.	EL- STR	2	CE 2233	Advanced Structural Analysis I	3	1	0	4
20.	EL- STR	2	CE 2234	Concrete Technology	3	1	0	4
21.	EL- STR	2	CE 2235	Design of Multistoried Building	3	1	0	4
22.	EL- STR	2	CE 2236	Pre-Stressed Concrete	3	1	0	4
23.	EL- STR	2	MA 2207	Probability and Statistics	3	1	0	4
24.	EL- TRS	2	CE 2237	Geometric Design of Highway and Airport Pavements	3	1	0	4
25.	EL- TRS	2	CE 2238	Traffic Engineering and Management	3	1	0	4
26.	EL- TRS	2	CE 2239	Highway Sub-grade and Foundation	3	1	0	4
27.	EL- TRS	2	CE 2240	Airport Planning and Design	3	1	0	4
28.	EL- TRS	2	CE 2253	Pavement Design	3	1	0	4
29.	EL- TRS	2	CE 2263	Highway Material and Construction	3	1	0	4
30.	EL- TRS	2	CE 2265	Highway Economics	3	1	0	4
31.	EL- TRS	2	CE 2268	Transportation Planning Models	3	1	0	4
32.	EL- TRS	2	CE 2269	Interstate Transport Planning	3	1	0	4

Information Brochure Post graduate Program 2011, NIT Patna

S. No	Core/ Elective Courses	Sem	Course Code	Course Title	L	T	P	Credits
33.	EL- TRS	2	CE 2270	Tunnel Harbors and Docks	3	1	0	4
34.	EL- TRS	2	CE 2271	Traffic Flow Theory	3	1	0	4
35.	EL- TRS	2	CE 2272	Land Use Planning	3	1	0	4
36.	EL- TRS	2	CE 2273	Railways	3	1	0	4
37.	EL- WRS	2	CE 2241	Open Channel Flow	3	1	0	4
38.	EL- WRS	2	CE 2242	Water Resources Planning and Economic Analysis of Water Resources System	3	1	0	4
39.	EL- WRS	2	CE 2243	Advanced Hydrology	3	1	0	4
40.	EL- WRS	2	CE 2244	Groundwater Hydrology	3	1	0	4
41.	EL- WRS	2	CE 2245	Design of Dams	3	1	0	4
42.	EL- WRS	2	CE 2246	Flood Control and Drainage	3	1	0	4
43.	EL- WRS	2	CE 2247	River Engineering	3	1	0	4
44.	EL- WRS	2	CE 2248	Irrigation Water Management	3	1	0	4
45.	EL- WRS	2	CE 2249	Hydro Power Planning and Design	3	1	0	4
46.	EL- WRS	2	CE 2250	Reservoir Operation and Planning	3	1	0	4
47.	EL- WRS	2	CE 2251	Hydrodynamics	3	1	0	4
48.	EL- WRS	2	CE 2252	Stochastic Hydrology	3	1	0	4

Course Structure for M. Tech (Mech. Engg.)

Program Code	Semester	Course code	Course Title	L- T- P	Credit
Core Courses (Common for all Specialization)					
MEPG	1	MA 2109	Advanced Mathematics	3-1-0	4
MEPG	1	ME 2162	Advanced Thermodynamics	3-1-0	4
MEPG	1	ME 2163	Experimental Methods in Thermal Science	3-1-0	4
MEPG	1	ME 2164	Advanced Topics in Engg. Optimization	3-1-0	4
MEPG	1	ME 2165	Advanced Heat & Mass Transfer	3-1-0	4
MEPG	1		**TOTAL**		**20**
REFRIGERATION AIR CONDITIONING & HEAT TRANSFER					
MEPG	2	ME 2267	Refrigeration System	3-0-3	5
MEPG	2	ME 2268	Thermal Environmental Control	3-0-3	5
MEPG	2	ME 2269	Design of Heat Exchange Equipment	3-0-3	5
MEPG	2	ME 2270	Solar Energy	3-0-3	5
MEPG	2	ME 2271	Individual Study, Report and Seminar	1-0-6	5
MEPG	2		**TOTAL**		**25**
THERMAL TURBO MACHINES					
MEPG	2	ME 2272	Thermal Turbo Machinery	4-1-0	5
MEPG	2	ME 2273	Gas Dynamics	4-1-0	5
MEPG	2	ME 2274	Principle and Design of Gas Turbine	4-1-0	5
MEPG	2	ME 2275	Hydraulic Turbo Machines	4-1-0	5
MEPG	2	ME 2271	Individual Study, Report and Seminar	1-0-6	5
MEPG	2		**TOTAL**		**25**
Common for all Specialization					
MEPG	3	ME 2376	Seminar	0-0-3	2
MEPG	3	ME 2377	Dissertation (To continue in 4th Semester)	0-0-12	8
MEPG	3		**TOTAL**		**10**
Common for all Specialization					
MEPG	4	ME 2478	Seminar	0-0-3	2
MEPG	4	ME 2479	Dissertation	0-0-20	13
MEPG	4		**TOTAL**		**15**
List of Electives (to be introduced)					
MEPG	Elective	ME 2X79	Combustion Engines and Pollution		
MEPG	Elective	ME 2X80	Advanced computational fluid dynamics		

Course Structure for M. Tech. in Computer Sc. & Engg.

Sem.	Course Code	Course Title	L	T	P	Credits	Remarks
1	CS 2101	Advanced Computer Architecture	3	1	0	4	
1	CS 2102	Advanced Data Structure & File systems	3	0	3	5	
1	CS 2103	Advanced Computer Networks	3	0	3	5	
1	CS 21xx	Elective-I	3			4	
1	CS 21xx	Elective-II	3			4	
		Total Credit	15	1 to 3	6 to 10	22	
2	CS 2204	Advanced Database Management System	3	0	3	5	
2	CS 2205	Distributed Systems	3	0	0	3	
2	CS 2206	Object Oriented Modeling & Design	3	0	3	5	
2	CS 22xx	Elective-III	3			4	
2	CS 22xx	Elective-IV	3			4	
2	CS 22xx	Seminars / Colloquium	0	0	2	2	
		Total Credit	15	1 to 2	8 to 12	23	
3	CS 2392	Dissertation (to be continue in 4th semester)	0	0	15	10	
		Total Credit	0	0	15	10	
4	CS 2493	Dissertation	0	0	23	15	
		Total Credit	0	0	23	15	
	List of Elective I , II, III & IV						**Elective Pool**
1.	CS 2121	Artificial Intelligence & Intelligent Systems	3	0	2	4	AI
2.	CS 2127	Real Time Systems	3	1	0	4	EVD
3.	CS 2133	Data Encryption & Compression	3	1	0	4	INS
4.	CS 2138	Analysis & Design of Information Systems	3	1	0	4	IR
5.	CS 2139	Information Retrieval	3	1	0	4	IR
6.	CS 2145	Advanced Computer Graphics	3	0	2	4	MS
7.	CS 2151	Parallel Algorithm	3	1	0	4	PC
8.	CS 2158	Advanced Software Engineering	3	1	0	4	PRM
9.	CS 2164	Theory of Computer Science	3	1	0	4	TOC
10.	CS 2165	Compiler Design	3	1	0	4	TOC
11.	CS 2222	Genetic Algorithms	3	1	0	4	AI
12.	CS 2223	Neural Networks	3	1	0	4	AI
13.	CS 2228	Ubiquitous & Pervasive Computing	3	1	0	4	EVD
14.	CS 2229	VLSI Design	3	0	2	4	EVD
15.	CS 2234	Cryptography & Network Security	3	1	0	4	INS
16.	CS 2240	Geographical Information Systems	3	1	0	4	IR
17.	CS 2241	Data Warehousing & Mining	3	0	2	4	IR
18.	CS 2246	Multimedia Systems	3	1	0	4	MS
19.	CS 2247	Image Processing	3	1	0	4	MS
20.	CS 2252	Grid and Cluster Computing	3	1	0	4	PC
21.	CS 2253	Quantum Computing	3	1	0	4	PC
22.	CS 2254	DNA Computing	3	1	0	4	PC
23.	CS 2259	Advanced Software Project Management	3	1	0	4	PRM
24.	CS 2260	Semantic Web	3	1	0	4	PRM
25.	CS 2266	Advanced Graph Theory	3	1	0	4	TOC
26.	CS 2267	Approximation Algorithms	3	1	0	4	TOC

Audit Course: Students admitted with non-Computer Sc./ IT branch orientation shall have to do some audit course as prerequisite to the courses being offered in 1st and / or 2nd semester as per requirement. The audit courses may be from UG/PG programme being offered by CSE or other departments. Student is required to attend classes and pass in the course. However credit for the same shall not be added as earned credit.

Suggestive Elective pool _(subject to being offered)_ has identified for specialize in a particular area

1) Artificial Intelligence (AI)
2) Embedded and VLSI Design (EVD)
3) Information and Network Security (INS)
4) Information Retrieval (IR)
5) Multimedia Systems (MS)
6) Parallel Computing (PC)
7) Project Management (PRM)
8) Theory of Computation(TOC)

Course Structure for M. Tech in Communication Systems

S. No.	Prog Code	Sem	Course Code	Title	L	T	P	Credit
1.	ECPG	1	EC 2101	Probability, Random variables and stochastic processes	3	1	0	4
2.	ECPG	1	EC 21xx	Elective-I	3	0	0	3
3.	ECPG	1	EC 21xx	Elective-II	3	0	0	3
4.	ECPG	1	EC 2128	Data Communication and Networks	3	1	0	4
5.	ECPG	1	EC 2129	Information & Coding Theory	3	0	0	3
6.	ECPG	1	EC 2155	Advance Communications & Networks Lab	0	0	6	4
7.				**1st semester total credit**				**21**
8.	ECPG	2	EC 2205	Signal Processing	3	0	3	5
9.	ECPG	2	EC 22xx	Elective III	3	0	0	3
10.	ECPG	2	EC 22xx	Elective IV	3	0	0	3
11.	ECPG	2	EC 22xx	Elective V	3	0	0	3
12.	ECPG	2	EC 22xx	Elective VI	3	0	0	3
13.	ECPG	2	EC 2256	Mobile Communication System & Wireless Network	3	0	3	5
14.	ECPG	2	EC 2261	Seminar & Comprehensive Viva Voce	0	0	3	2
15.				**2nd semester total credit**				**24**
16.	ECPG	3	EC 2362	Seminar & Comprehensive Viva Voce	0	0	3	2
17.	ECPG	3	EC 2391	Dissertation (To continue in 4th Sem)	0	0	12	8
18.				**3rd semester total credit**				**10**
19.	ECPG	4	EC 2463	Seminar & Comprehensive Viva Voce	0	0	3	2
20.	ECPG	4	EC 2493	Dissertation	0	0	20	13
21.				**4th semester total credit**				**15**
22.		**Electives: I & II** *(any two from the following):*							
23.	ECPG	EL1&2	EC 2132	Artificial Intelligence	3	0	0	3
24.	ECPG	EL1&2	EC 2133	Computer Networking	3	0	0	3
25.	ECPG	EL1&2	EC 2134	DSP Architecture & Application	3	0	0	3
26.	ECPG	EL1&2	EE 2106	Microprocessor Engineering and Applications	3	0	0	3
27.	ECPG	EL1&2	EC 2110	Reliability Engineering	3	0	0	3
28.	EC	EL1&2	EC 2235	Modern Digital Communication Techniques	3	0	3	5
29.		**Electives: III, IV, V &VI** *(any four from the following):*							
30.	EC	EL1&2	EC 2236	Telecommunication Switching & Networks	3	1	0	4
31.	ECPG	EL-3to6	MA 2237	Advance Mathematics	3	0	0	3
32.	ECPG	EL-3to6	EC 2238	Broad band Networks & Network Management	3	0	0	3
33.	ECPG	EL-3to6	EC 2239	Data Compression	3	0	0	3
34.	ECPG	EL-3to6	EC 2240	Decision & Estimation Theory	3	0	0	3
35.	ECPG	EL-3to6	EC 2241	Digital Telephony	3	0	0	3
36.	ECPG	EL-3to6	EC 2219	Digital Design and Modeling with HDL-Verilog	3	0	0	3
37.	ECPG	EL-3to6	EC 2242	Multimedia Communication	3	0	0	3
38.	ECPG	EL-3to6	EC 2243	Multi-resolution Image Processing	3	0	0	3
39.	ECPG	EL-3to6	EC 2221	Optoelectronics Devices and Systems	3	0	3	5
40.	ECPG	EL-3to6	EC 2244	Pattern Recognition	3	0	0	3
41.	ECPG	EL-3to6	EC 2245	Photonics & Optical-Switching.	3	0	0	3
42.	ECPG	EL-3to6	EC 2246	Satellite Communication	3	0	0	3
	ECPG	EL-3to6	EC 2247	Spread Spectrum - Technique	3	0	0	3
43.	ECPG	Audit Course	EC 1X10	Analog Communication Systems	3	0	3	5

Audit Course:

Any student may get registered for any audit courses (if any) required as pre-requisite for some of the M.Tech Program with specialization of the student. For any audit course, student is required to attend class and lab and shall be evaluated for all the components during the semester of the department or any other department and "pass". However the credit earned and grade point shall not be taken in the consideration for the SGPA/CGPA calculation.

Course Structure for Master of Urban & Regional Planning

S. No.	Course	Sem	Course Code	*Course Title in different semesters*	L	T	P	Credits	Exam. Hrs Mid Sem.	Exam. Hrs End Sem.
				SEMESTER-I						
1.	ARPG	1	AR 2101	Planning Principles & Techniques	3	0	0	3	2	3
2.	ARPG	1	AR 2102	Environmental Planning	3	0	0	3	2	3
3.	ARPG	1	AR 2103	Housing and Community Planning	3	0	0	3	2	3
4.	ARPG	1	MA 2101	Statistics and Computer Programming	3	1	0	4	2	3
5.	ARPG	1	AR 2104	Infrastructure Planning	3	0	0	3	2	3
6.	ARPG	1	AR 2105	Urban Planning Workshop	1	0	9	7		
					16	**1**	**9**	**23**		
				SEMESTER-II						
7.	ARPG	2	AR 2206	Traffic and Transportation Planning	3	0	0	3	2	3
8.	ARPG	2	AR 2207	City and Metropolitan Planning	3	0	0	3	2	3
9.	ARPG	2	AR 2208	Disaster Mitigation & Management	3	0	0	3	2	3
10.	ARPG	2	AR 2209	City & Regional planning workshop	0	0	10	7		
11.	ARPG	2	AR 22WW	Elective-I	3	0	0	3	2	3
12.	ARPG	2	AR 22XX	Elective-II	3	0	0	3	2	3
13.	ARPG	2	AR 22YY	Elective-III	3	0	0	3	2	3
					18	**0**	**10**	**25**		
				SEMESTER-III						
14.	ARPG	3	AR 2310	Development Management and Finance	3	0	0	3	2	3
15.	ARPG	3	AR 2311	Planning Legislation and Professional Practice	3	0	0	3	2	3
16.	ARPG	3	AR 23ZZ	Elective-IV	3	0	0	3	2	3
17.	ARPG	3	AR 2391	Dissertation & Seminar (there will be minimum 2 stages of review by the Committee)	1	0	8	6		
					10	**0**	**8**	**15**		
				SEMESTER-IV						
18.	ARPG	4	AR 2492	Dissertation & Seminar (there will be minimum 5 stages of review by the Committee)	0	0	22	15		
					0	**0**	**22**	**15**		
				Elective-I (WW)*						
19.	ARPG	2	AR 2221	Settlement Systems Planning	3	0	0	3	2	3
20.	ARPG	2	AR 2222	Social Aspects of Human Settlement	3	0	0	3	2	3
21.	ARPG	2	AR 2223	Land Economics and Management	3	0	0	3	2	3
				Elective-II (XX)*						
22.	ARPG	2	AR 2231	Landscape Planning and Design	3	0	0	3	2	3
23.	ARPG	2	AR 2232	Sustainable Development (Arch.)	3	0	0	3	2	3
24.	ARPG	2	AR 2233	Ecology and Resource Development	3	0	0	3	2	3
				Elective-III (YY)*						
25.	ARPG	2	AR 2241	Remote Sensing and GIS in Planning	3	0	0	3	2	3
26.	ARPG	2	AR 2242	Regional Analysis	3	0	0	3	2	3
27.	ARPG	2	AR 2243	Inclusive Planning	3	0	0	3	2	3
28.	ARPG	2	AR 2244	Rural Area Planning & Development	3	0	0	3	2	3
				Elective-IV (ZZ)*						
29.	ARPG	3	AR 2351	Urban design	3	0	0	3	2	3
30.	ARPG	3	AR 2352	Heritage and Conservation	3	0	0	3	2	3
31.	ARPG	3	AR 2353	Tourism Planning and Development	3	0	0	3	2	3
32.	ARPG	3	AR 2354	Real Estate Development & Management	3	0	0	3	2	3
				Audit Course						
				Refer notes at **						

Note:
* Students are required to choose any one elective from each group.
** Audit Course: Audit course is a course for the student who is registered and can be taken up in any semester. The student is required to do/participate in all evaluation process (including class test and semester examination) and pass the course. However; the credit earned shall not be taken into account for calculation of the CGPA. Any student may opt for audit course out of the courses mentioned under elective (which has not been offered in their semester).

ANNEXURE - III

Evaluation under Credit System

Education at the institute is organized around the credit system of study. The prominent features of the credit system entail a process of continuous evaluation of a student's performance and flexibility to allow a student to progress at an optimum pace suited to his/her ability or convenience subject to fulfilling minimum requirement for continuation.

Each course has a certain number of credits which describe its weightage. A student's performance is measured by the number of credits that he/she has completed satisfactorily. A minimum Grade Point Average is required to be maintained for satisfactory progress. Also a minimum number of earned credits should be obtained in order to qualify for the degree.

Each course is coordinated by a member of the teaching staff of the Department, which offers the course in a given semester. This faculty member is called the course coordinator. He has full responsibility for conducting the course, coordinating the work of the other members of the faculty involved in that course and for holding tests and assignments and awarding grades. For any difficulty a student is expected to approach the course coordinator for advice and clarification.

Awarding of Grades

The grade in each course shall be awarded on the basis of the total marks obtained in the subject concerned as follows:

Conversion from Percentage marks to Grade and its Grade points Award of Grade and Grade point

For Semester Exam.		Theory Component:		Practical Component:	
Range of marks (m)	*Performance*	*Grade to be awarded*	*Grade Point per Credit*	*Grade*	*Grade Point per Credit*
m > = 90	Excellent	A+	10	A+	10
80 < = m < 90	Very good	A	9	A	9
70 < = m < 80	Good	B	8	B	8
60 < = m < 70	Fair	C	7	C	7
50 < = m < 60	Average	D	6	D	6
35 < = m < 50	Pass	P	5	- -	- -
40 < = m < 50	Pass	- -	- -	P	5
m < 35	Fail	F	0		
m < 40	Fail	- -	- -	F	0
Not appeared at End Semester Exam	Incomplete	I	0	I	0
Unsatisfactory Attendance/ Disciplinary Action/ Adopted malpractice	Debarred	X	0	X	0
* Symbol to indicate Incomplete Course as student has been absent at End semester examination for Theory and/ or practical component of examination(s) - to be used in tabulation sheet.					

Awarding of SGPA/ CGPA

The Semester Grade Point Average (SGPA) shall be calculated as follows:

> (a) The point equivalent awarded in each subject of the course, for which the student has been registered, shall be multiplied by its credits points.

(b) These products shall be added and the sum shall be divided by the total number of Credits Points registered for, ignoring the incomplete grade. The ratio shall be called SGPA.

The Cumulative Grade Point Average (CGPA) shall be computed at the end of the second and subsequent semesters in the following manner:

(a) The SGPA obtained in each semester shall be multiplied by its corresponding total, credits registered for the semester.

(b) These products shall be added and the sum shall be divided by the total number of credits points registered in all the semester.

(c) Both SGPA and CGPA shall be, rounded off to the second place of decimal.

Eligibility for Award of M. Tech./ MURP Degree

A candidate shall be entitled to the degree of M. Tech/ MURP only on successful completion of minimum 70 credits provided he has obtained a minimum of "D" grade in each subject or a minimum CGPA of 6.00. After a candidate clears the required number of credits and fulfills other requirements and conditions of the regulations for Post-graduate program (M. Tech), he/she shall be declared to have passed M. Tech. examination.

As per Hon'ble Supreme Court's order in writ application No. (C) 656/1998 "Ragging is banned in the Institution".

Anyone found indulging in ragging shall be punished as per Hon'ble Supreme Court Orders appropriately which may include expulsion from the Institute.

The Institute treats ragging as a cognizable offence and stern action will be taken against the offenders.

NATIONAL INSTITUTE OF TECHNOLOGY PATNA
PATNA – 800005 (BIHAR)

Application Form for M. Tech/ MURP Program
Institution Level Counseling: Session – 2011-12

Department:		
APPLICATION NO.	*(to be assigned by Receiving office)*	**PHOTOGRAPH** Affix recent passport size photograph And Put your signature in box provided below this space in Black Jell Pen

To be filed by the candidate in his/her own handwriting in Capital letters except signature

GATE Exam Discipline Code		**CATEGORY** *(Put √ mark)*	
GATE ROLL NO.		OP/ General	
GATE RANK		OBC	
GATE SCORE (Marks)		SC	
Branch of Engg./ Arch.		ST	
HOME STATE		PH	
District		Sponsored	

Details of Demand Draft attached: Bank / Branch	DD number	Amount	

1.	Name of candidate in full *(as per 10th Certificate)*		
2.	Father's Name		
3.	Mother's Name		
4.	Guardian's name in full (if father is not alive)		
5.	Date of Birth (dd-mm-yy)/ Sex:		Male/ Female
6.	Occupation of Parents	Father:	Mother:
	Parents Income per annum from all Sources		
	Organization where father/ Mother is working or Guardian (if father is not alive),		
7.	Correspondence Address Pin Code:		
	Phone No. (with STD Code)/ Mobile No.:		
	Email ID:		
8.	Permanent Address Pin Code:		

Information Brochure Post graduate Program 2011, NIT Patna

9.	**Educational Qualifications:-**				
	Name of Examination	*Name of the Institute*	*Name of the Board/ University*	*Year of Passing*	*Percentage marks*
	Secondary/10th				
	I. Sc./XII/ (10 +2)				

B. Tech/ B.E./ B. Sc. Engg or Equivalent* Academic Record of the Qualifying Examinations

Degree and Branch	*Institute/ University*	*Semester/ Year*		*Year of passing*	*SGPA/ % Marks*	*CGPA/ Aggregate*	*Remarks*
		1st	First				
		2nd					
		3rd	Second				
		4th					
		5th	Third				
		6th					
		7th	Fourth				
		8th					

Master in Computer Application Academic Record of the Qualifying Examinations

Degree and Branch	*Institute/ University*	*Semester/ Year*		*Year of passing*	*SGPA/ % Marks*	*CGPA/ Aggregate*	*Remar ks*
		1st	First				
		2nd					
		3rd	Second				
		4th					
		5th	Third				
		6th					

10.	Declaration of the Candidate :
	I,..................... .... Son/ Daughter of Sri..
	Declare that : - a) Information furnished above are correct and in case any of them is proved to be false or forged at any stage of my admission to and/ or stay in the Institute, I shall be liable (i) to lose my candidature for admission to the program, (ii) for expulsion from the Institute if admitted and (iii) for appropriate legal action. b) In the event of my being admitted to this Institution, I shall abide by all the rules and regulations of the Institute and the University, concerned.
	Place : _____ Date : _____ — Full Signature of the Candidate in English

11.	Declaration of the Father / Guardian (to be filled in his / her own handwriting)
	I,...(Name) declare that in the event of Sri/Smt./ Miss.. being admitted to this Institution. I shall be responsible for his / her conduct and undertake to pay all his / her Institute, Hostel, Mess and other dues regularly till the completion of his / her studies. I further certify that the Information furnished by him/ her are correct.
	Place : Date : — Full Signature of Father / Guardian

12.	**Please Enclose Self attested Photocopies of following**:-		*(Put √ mark)*
(i)	Demand Draft of Application Fee as per information Brochure	Must be submitted with application form	
(ii)	GATE Score/ Rank Card OR Sponsorship certificate (for admission against Sponsored Seats)		
(iii)	Certificate of Category (OBC/ SC / ST/ PH), if applicable, Issued by the competent authority		
(iv)	Income certificate for OBC candidates stating the Candidate's Parent do not belong to Creamy Layer as per directive of the MHRD		
(v)	Certificate for Physically handicapped		
(vi)	Qualifying Examination Marks Sheet/ Grade Card		
(vii)	Four Photographs identical to the one Pasted on the application form	Must be submitted at the time of admission Counseling	
(viii)	Class X (High School) Board Certificate as proof of date of birth		
(ix)	Qualifying Examination Passing Certificate of		
(x)	Migration Certificate from the University/ Deemed University/ Institute attended		
(xi)	Demand Draft for Tuition Fee and Development Fee as per Information Brochure		
Signature of Verifying Officers			
	1…………………… 2………………… 3…………………… 4…………………… 5…………………		
(To be obtained at the time of admission only)			
	Full Signature of the Candidate: (English)		
	Left Thumb impression of the Candidate		
(For Office use Only)			
	Admit Mr./Ms.………………………………………..in M. Tech/ MURP Program first semester under Department of Elect Engg./ Mech Engg./ Civil Engg./ Computer Sc & Engg/ Electronics & Comm. Engg./ Architecture with Specialization …………… …… ………. . As per records his Category Merit Sl. No. ………………and is admitted against Institute Roll no…………………… . He/ she fulfilled all requirements for being admitted.		
	Signature of Program Officer (A&E)		
	Signature of Asst. Registrar (Admission)		
	Signature of Dean (Academics)/ Chairman Admission Committee:		

"*Sponsorship Certificate from the Employer*"

(To be provided on the letter Head of the Organization, Only for candidates desirous of admission as full time sponsored candidates)

To whom it may concern

This is to certify that Mr./ Ms. _____ (*Full name of the employee*) is working as _____ (*Designation of the employee*) in this organization from _____ and has completed _____ years of service. He is confirmed/ likely to be confirmed soon in the grade/ pay scale of ₹ _____ _____ _____.

The above named employee is desirous to pursue Master's/ Doctoral Degree at NIT Patna. During the period of his/ her studies at the Institute the above employee will be treated as on duty with usual salary and allowances. He/ She shall be fully relieved or granted leave for the period of his/ her higher studies for passing the Master's/ Doctoral program at National Institute of Technology Patna.

He/ She will attend classes and other academic activities at the institute as per curricula requirement of the program. The conduct of sponsored candidate shall be the responsibility of the sponsoring organization.

Signature of the issuing officer

(Name and designation of the Issuing officer with Official Seal)

Place _____

Date _____

Proforma for Other Backward Class (OBC) Certificate

[Certificates issued from Maharashtra State must be validated by the Social Welfare Department of the Maharashtra Government]

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

This is to certify that Shri/ Smt./ Kum. _____Son / Daughter of Shri/ Smt. _____ of Village / Town _____ District / Division _____ in the _____ State 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. 12015/9/2000-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.

Shri/ Smt./ Kum. _____ and / or his family ordinarily reside(s) in the _____ District / Division of _____ State. 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. 36012/22/93-Estt. (SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.) dated 09/03/2004 or the latest notification of the Government of India.

Dated:

District Magistrate/ Competent Authority with 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:

(i)   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.

(iv)   Sub-Divisional Officer of the area where the candidate and / or his family resides.

(c)   The annual income / status of the parents of the applicant should be based on financial year ending March 31, 2010.

Information Brochure Post graduate Program 2011, NIT Patna

Declaration / Undertaking –for OBC Candidates only
(To be submitted by the Candidate)

I, Mr./Ms. _____ son / daughter of Shri _____
resident of village / town /city _____ district _____
State hereby declare that I belong to the _____ community which
is recognized as a backward class by the Government of India for the
purpose of reservation for admission in Central Government Institutions 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 is within prescribed limits as on financial year ending on March
31, 2009.

Place:

Signature of the Candidate

Date:

Declaration / undertaking not signed by Candidate will be rejected.

Proforma for Scheduled Caste (SC) / Scheduled Tribe (ST) Certificate

[Certificates issued from Maharashtra State must be validated by the Social Welfare Department of the Maharashtra Government]

This is to certify that Mr. / Ms. ………… …………… ……………… ………… ……… ….. Son/Daughter of …..…… …………… ……... ………… …………………… …………..…..… belongs to Scheduled Caste / Scheduled Tribe category and is resident of village / city .... ………… ……………….. State…………… ……………….. His / her caste is notified as Schedule Caste / Schedule Tribe by Government of India Act 1956 (Amended).

Candidate's Signature

Signature:
Place:
Name:
Date:
Designation*

Seal
Place
Date:

* Tehsildar / ADM or Designated Authority

Proforma for Physically Challenged (PH) Certificate
(To be obtained by the candidate)

Affix here recent Photograph showing
the disability duly attested by
CMO of the District/ Civil Surgeon

Affix here recent
Photograph showing the
disability
duly attested by
CMO of the District/ Civil
Surgeon

This is to certify that I have examined Mr./ Ms_____ _____ _____ son / daughter of _____ _____ _____ He / She as_____ _____ _____ (name of physical disability) which comes under the following type of disorder:

1.   Orthopedic disorder
2.   Vision
3.   Speech and Hearing impaired

The percentage of disorder is _____ percentage

Signature of candidate
Date

Signature of CMO of the District / Civil Surgeon

Place
Name

Seal

Place:
Date:

Note:
1.   For physically challenged category a minimum of 40% disability is required subject to the condition that the candidate is capable of carrying out all activities related to theory and practical work as applicable to B.E./ B.Tech/ B. Arch. courses without any special concessions and exemptions.
2.   Certificate issued on or after January 1, 2010 will only be accepted.
3.   Medical board of CCB will examine the candidate to verify the claim of handicap at the Admission Centre.
4.   CCB reserves the right to accept/reject the claim of the candidate.

Information Brochure Post graduate Program 2011, NIT Patna

National Institute of Technology Patna

Proforma for Physically Challenged (PH) Certificate
(for the use of Medical Board at Admission Centre)

Date _____

This is certified that Shri/ Smt/ Kum_____ _____ _____
_____ son/daughter of Shri _____ _____ __ _____
_ _____ age_____ sex_____ identification marks(s)__
_____ _____ _____ _____ _____
_____ is suffering from permanent disability of following category:-

A. Locomotor or cerebral palsy:

   (i) BL-Both legs affected but not arms.

   (ii) BA-Both arms affected

      (a) Impaired reach

      (b) Weakness of grip

   (iii) BLA-Both legs and both arms affected

   (iv) OL-One leg affected (right or left)

      (a) Impaired reach

      (b) Weakness of grip

      (c) Ataxic

   (v) OA-One arm affected

      (a) Impaired reach

      (b) Weakness of grip

      (c) Ataxic

   (vi) BH-Stiff back and hips (Cannot sit or stoop)

   (vii) MW-Muscular weakness and limited physical endurance.

B. Blindness or Low Vision:

   (i) B-Blind

   (ii) PB-Partially Blind

C. Hearing Impairment :

   (i) D-Deaf

   (ii) PD-Partially Deaf Percentage of disability in his/her case is _____ _____percent.

This is to certify that the candidate is capable to carry out all theory and practical requirement of engineering/ technology/ architecture studies. Or

This is to certify that the candidate is not capable to carry out all theory and practical requirement of engineering/ technology/ architecture studies due to _____
_____ _____
_____

Signature of the candidate _____

(Dr._____)   (Dr._____)   (Dr._____)
Member, Medical Board   Member, Medical Board   Chairperson, Medical Board

Guidelines to the Medical Board for Physical Disability
(Not a part of the Physically Challenged (PH) certificate)

The candidate should meet the following physical requirements for discharge of his /her duties:-

(i)	F-can perform work by manipulating with fingers.	Yes/No
(ii)	PP-can perform work by pulling and pushing.	Yes/No
(iii)	L-can perform work by lifting.	Yes/No
(iv)	KC-can perform work by kneeling and crouching	Yes/No
(v)	B-can perform work by bending.	Yes/No
(vi)	S-can perform work by sitting.	Yes/No
(vii)	ST-can perform work by standing.	Yes/No
(viii)	W-can perform work by walking.	Yes/No
(ix)	SE-can perform work by seeing.	Yes/No
(x)	H-can perform work by hearing/speaking.	Yes/No
(xi)	RW-can perform work by reading and writing	Yes/No