

Department of Information Technology

Details of UG & PG Programme: (Programme Name, Level and Year of Starting with intake)

Programme objective:

1. The students should be able to apply mathematical, scientific, electronic and computer engineering principles to identify, understand, evaluate and formulate solutions to meet industry and societal needs.
2. The students should utilize their aptitude, expertise and experience to solve industry oriented problems regarding Information Technology field.
3. The students should lead in their professional area with their economic and managerial skill and 3. field oriented knowledge
4. The students should be able to nourish their research skill and involving themselves to current research oriented works.
5. The students will be provided with an educational foundation that prepares them to become entrepreneurs in the field of development and deployment of software, information systems and information management tools.
6. The students will learn to interact properly with their peers in other disciplines in industry and society to establish compatibility as well as inter-industrial relationship which would help to contribute to the economic growth of the country.
7. The students will have the capability of developing professional skills which would help them preparing for immediate employment or higher studies in the field of Information Technology and related disciplines.
8. The students will communicate their ideas to be effective while they are working in teamwork to other team-members.

Departmental Mission:

Addressing different aspects of academic growth in Information Technology, disseminating advance concepts for pursuing research and development oriented activity in Information and Communication Technology and guiding the students to grow themselves in to successful I.T. Professional.

HODs Message:

The Information Technology Department of this premier Institute equips the students with practical based knowledge modeled upon developments in software technology and its application in the relevant fields, both traditional and emerging. The students gain industry oriented knowledge for their preparation to meet the demands in the competitive market. The conventional theoretical lessons are backed by ample laboratory practices.

We guide the students in proper direction amidst an atmosphere of open mind-set to make them inquisitive about the emerging technologies with sufficient theoretical and practical training enabling them to readily adapt themselves in the global market.

The I.T. infrastructure present at NIT consists of state-of-art Computer Labs with high speed internet connection. A total of 15,000 sq. ft. has been used for creating these LABs, which provides students with adequate practical experiences and a dedicated internet connection for knowledge enhancement and research. In recognition of this robust and structured computing facility, major leading firms/bodies, including TCS, Co-Cubes, leading Banks /AIEEE, make use of this infrastructure for their online recruitment exams.

Professional liaison with leading Training and Research Institutes of the country are maintained for fruitful collaborations in emerging trends in the area of Information Technology.

NIT maintains constant communication with all leading companies in order to assess their needs in terms of manpower and know-how for better placement of students. We endeavor for an all-round development of the students including academic competence, leadership and personality, so that they acquire the traits of not only a highly skilled professional, but also that of a responsible citizen.

Prof. (Dr.) Bidyut K Medya
HOD - Information Technology Department



Approval / Accreditation

: Approved by AICTE
Accredited by AICTE
Accredited by NBA-AICTE in **2008** for **3** years

Eminent member in Department B O S: 1. Prof. Debductta Sinha, University of Calcutta
2. Prof. Samiran Chattopadhyay, Jadavpur University

Syllabus (Broad contents with credits only) : <http://www.wbut.ac.in/page.php?id=195>

Students' Projects:

Name of the Student(s)	Project Title	Areas of Specialization	Project Supervisor(s)
CAY			
Puja Dey	Development of a online course portal for a campus	Information Systems	Shamapriya Chatterjee
Gulrez Tabassum			
Ekata Ghosh			
Sumit Ghosh	Online Placement System	Information Systems	Anirban Bhar
Debopam Chakraborty			
Tanusree Mukherjee			
Ashis Basak			
Sanghamitra Acharya	Online Hotel Booking System	Information Systems	Soumen Ghosh
Samrat Sen			
Diba Saha			
Sayani Nandi	Text to speech	Pattern Recognition	Soumen Ghosh
Nikita Pandey			
Bidyut Joyti Saha	Development of a Safe and Secure Internet Banking System	Information Systems	Suchismita Biswas
Sayantana Kul			
Saroj Kr. Nayak			
Ghazi Farhad Amin			
CAYm1			
Siddhartha Datta	Implementing Algorithm using WIMAX (Mobile Communication)	Mobile Communication	Mr. Sajal Saha
Dhiman Chakraborty			
Nishan Das			
Abhitesh Kumar	Steganography	Information Security	Mr. Soumen Ghosh
Sweta Poddar			
Kumari Vandana	Face Recognition	Pattern Recognition	Dr. Bidyut K Medya
Bodhisattwa Barman			
Souvik Manna	Finger Print Scanning	Pattern Recognition	Dr. Bidyut K Medya
Biswajit Manna			
Sk. Rabiul Islam			
Samrat Dey			
Anish Kumar Thakur	Online Voting	Information Systems	Ms. Sujata Kundu
Satyajit Kr. Choudhary			
Tausif Ahmed			

Laboratory Details:

Software Engineering Lab

A state-of-the-art Computer LAB equipped with high-end Wipro PCs with 19" TFT Wide Screen Monitors. PCs in this LAB are interconnected with the latest Category 6 UTP cables in a STAR Network topology. Network is terminated in a structured manner with CISCO Managed switch mounted on a VALRACK with patch panels. A total of 35 Computers provide students a comprehensive learning environment. All Computers run on Licensed Windows XP (SP2). Software ranging from C, C++, MS-Project, MS- Visual Studio 2010, MS-Office 2007 have been installed in these PCs.



E-Commerce Lab

A fully air-conditioned Computer LAB equipped with high-end HP PCs. PCs in this LAB are networked in a structured manner with CISCO Managed switch mounted on a VALRACK with patch panels in a STAR Topology. A total of 31 Computers have a dual boot environment. All Computers run on Licensed Windows XP (SP2) and Fedora 11 Operating System. Installed applications Software include - C, C++, Oracle9i, MS- Visual Studio 2010, JAVA, JDK 1.6 and others.

Networking & Data Communication Lab

Lab 316D, is the Network and Data Communication LAB. This LAB is equipped with the most advanced CISCO managed switch. Networked with the latest Category 6 UTP cables in a star network topology all computers in this lab are state-of-the-art. There are a total of 32 computers. All PCs are of latest configurations and of make ACER. Enabled with structured cabling with valracks and patch panels this LAB provides a real-world scenario to students with regards to networking. Here students are taught the intricacies of networking between 2 or multiple PCs by exacting the practical field through Crimping tools, LAN testers, RJ-45 connectors and UTP patch cords. A variety of advanced software modules are covered by highly skilled faculty(s).



Multimedia & Web Technology Lab

This LAB provides students with the latest in Multimedia and Web Technologies. This LAB consists of high-end computers with added Graphics and multimedia speakers. There are a total of 35 computers with the latest configurations. All computers are networked in a star topology with Category 6 UTP cables, terminated in a 9u valrack with patch panels. All PCs are on Win XP and/or Win7 Operating System and have MS- Visual Studio 2010, MS- Office2007/2010 installed.

Design & Project Lab

LAB 316Q, is a newly created computer LAB with brand new PCs and state-of-the-art networking. This LAB is called the Design and Project LAB, and is meant for students who have been allocated projects under Project guides. Equipped with the most advanced computing facility this LAB have PCs from cross-platform vendors ranging from HP, Acer, Wipro and HCL. Varied softwares are available for enabling students to conceptualize, design and create projects. Apart from Win XP and Win 7, these PCs have Red hat and/or Ubuntu as their Operating Systems. Databases ranging from MS SQL Server to Oracle 9i & MS-Visual Studio 2010 provide students with varied opportunity. This Project LAB also has dedicated leased line internet connectivity for ready references.



Server Room :

NIT has the best and most advanced Server Room among all the affiliates of JIS. Narula is equipped with a dedicated Server Room with 7 high-end Servers. The whole IT infrastructure of Narula is being maintained through this Server Room. Networking for the entire campus has been terminated and centralized at the Server Room. Located at the centre of the 2nd Floor Central Computing Facility, this Server Room provides centralized management and monitoring. Following are the customized features :

- 6 IBM Servers
- 1 HCL Server
- 2 Proxy Servers
- 1 ERP Server
- 1 DBMS Server
- 1 Bio-metric and Attendance Server
- 2 Data Servers
- Fiber Optic backbone
- Gigabit Ethernet
- Cyberoam UTM
- 1 Layer-3 XtremeNetworks Managed Core Switch
- 1 Cisco 3560G Managed backup Core Switch
- 12 Cisco 2950 Managed Layer-2 Switch
- Centralized 36u Tower Rack for management and monitoring
- 39 Mbps dedicated Leased Line Internet Service (1:1)
- Structured Networking
- UPS backup
- Fully Air-conditioned

The whole IT infrastructure of Narula was recently revamped and redesigned with the latest products. It now boasts of a complete fibre optics backbone to enable end users with a fast and dedicated network. A total of 39 Mbps of dedicated bandwidth provides super fast internet browsing experience. The Cyberoam UTM provides security from Viruses, malware and spam and enables delivery of a clean bandwidth. Narula's new Server room is state-of-the-art.

Research Publication and Books:

• **Journals**

- National : NIL
- International : 6

• **Conference Proceedings:**

- National : 2
- International : 6

• **Books** : NIL

Success rate of Students:

Year of Entry (in reverse chronological order)	Number of Students Admitted in 1st year + Admitted laterally in 2nd year (N1 + N2)	Numbers of students who have successfully completed			
		1st year	2nd year	3rd year	4th year
CAY	55				
CAYm1	63	43			
CAYm2	57	46	49		
CAYm3	63	45	53	59	
CAYm4 (LYG)	57	55	50	54	57
CAYm5 (LYG m1)	63	48	53	61	63
CAYm6 (LYG m2)	65	64	56	58	65

Students' Achievements:

Students Name	Award/ Certificate	Position achieved	Date	Venue
Soumya Shankar Kundu	TECH-NiT- ous' 10 (Robo-race)	1st	26th-27thh March 2010	NIT
Firdousi Begum	FESTRONIX' 11 (Robocup)	2nd	5th-6th March 2011	IEM, Kolkata
Sk. Irfan Tanver	FESTRONIX' 11 (Robocup)	2nd	5th-6th March 2011	IEM, Kolkata
Soumya Shankar Kundu	FESTRONIX' 11 (Robocup)	2nd	5th-6th March 2011	IEM, Kolkata
Soumya Shankar Kundu	Robotics-Octagon Mission	Consolation Prize	29th Sept-3rd Oct, 2010	IIT, Madras
Firdousi Begum	Kshitij 2011 (Robotix)	Finalist	28th-31st Jan, 2011	IIT, KGP
Sk. Irfan Tanver	Kshitij 2011 (Robotix)	Finalist	28th-31st Jan, 2011	IIT, KGP
Mr. Arittra Pramanick	Spring Fest 2012 (Youth Marathon)	3rd	19th-24th Jan, 2012	IIT, KGP
Mr. Indranil Samanta	Spring Fest 2012 (Lights, Camera s.f) (Short film competition)	1st	19th-24th Jan, 2012	IIT, KGP

Placements/ Higher Studies:

Year	Total Students	Students Places	Placement %
2008	61	53	86.89
2009	58	48	82.76
2010	65	54	83.08
2011	61	52	85.25
2012	56	48	85.71
2013	61	61	100.00
2014 (So Far)	55	19	30.91

Professional Activities:

- Events Organized

Engineering Events	Venue	Date	Organized by
Academic Year (13-14)			
AICTE sponsored two weeks FDP on “WiMAX,LTE,4G & Betond”	Seminar Hall	01-12 July 2013	IT Department
Academic Year (12-13)			
Workshop on Java Programming	IT Dept.	02 - 11 January 2013	IT Dept., NIT in collaboration with Louisiana State University, USA
Seminar on SAP Technologies	Seminar Hall	10 October 2012	IT Dept., NIT
One day seminar on Android Application Development	Seminar Hall	21 September 2012	IT Dept., NIT
Seminar on Software Testing	Seminar Hall	22 August 2012	IT Dept., NIT
Workshop on PC Installation & Maintenance	IT Dept.	9-13 July 2012	IT Dept, NIT
Academic Year (11-12)			
Workshop on Better Programming Techniques & UNIX OS	IT Dept. NIT	02 - 11 January 2012	IT Dept., NIT in collaboration with Louisiana State University, USA
One day educational program on Advance JAVA	IT Dept. NIT	20-21 December 2011	IT Dept
Seminar on Thinking Engineers	Seminar Hall	04 November 2011	NIT
One day seminar on Mobile Communication	Seminar Hall	08 September 2011	IT Dept., NIT
Academic Year (10-11)			
Faculty Development Workshop on Software Engineering	IT Dept.	08-21 June 2010	IT Dept., NIT in collaboration with Louisiana State University, USA
Workshop on Object-Oriented Programming with C++	IT Dept.	03 - 14 January 2011	IT Dept., NIT in collaboration with Louisiana State University, USA

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Industry Interaction:

- Industrial visit
- Expert lectures
- Mock Assessment

Expert Lecture:



Prof. Bhaskar Gupta, Professor and former Head, department of Electronics and Telecommunications Engineering, Jadavpur University.



Prof. Jibendu Sekhar Roy is a professor in the School of Electronics Engineering, KIIT University, Bhubaneswar, Odisha.



Ajit Pal is currently a Professor in the Department of Computer Science and Engineering at Indian Institute of Technology, Kharagpur.



Professor Animesh Maitra, Professor of Radio Physics and Electronics department, University of Calcutta.



Dr. Iti Saha Misra is presently holding the post of Professor in the Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata, India.



Dr. Sourav Dutta

Executive Telecom Consultant & Cloud Leader, IBM



Mr. Chanchal Chakraborty, Presently working as Chief Technology Officer, Reliance for deployment of 4G services.



Dr. Suvra Sekhar Das, Assistant Professor, G S Sanyal School of Telecommunications

Received Grant:

Modernization of **Multimedia Technology and Application Lab** (In Progerss)

Amount Sanctioned: Rs. 11 Lakh

Approved Items:

- Desktop PCs
- Adobe Premier Pro CS (10 users)
- Online UPS (6 KV) 2 No.