

Information Brochure & Application Form 2011-2012

M. Tech. in Computer Science & Engineering



M. TECH



**Department of Computer Science & Engineering
University of Kalyani**

Kalyani, Nadia, West Bengal

□ The University :

The University of Kalyani is situated at Kalyani Township, West Bengal, India. Kalyani is located at a distance of 50 K.M. away from Kolkata with National Highway on the one side and the river Ganga on the other. Kalyani is gradually emerging as a moment center of Higher Education in the State. In and around the Kalyani, four Universities namely, Bidhan Chandra Krishi Viswa Vidyalaya, West Bengal University of Animal and Fisheries Science, Netaji Subhas Chandra Open University, and West Bengal University of Technology have been set up beside the University of Kalyani. The University was established in the year 1960 with a vast campus area of 325 acres in eco-friendly set up. The University is playing a significant role in expanding the horizon of applied sciences, technical professional education in the State. Presently the University is offering advanced facilities for post-graduate education and research in 28 different subjects/disciplines in Science, Engineering & Technology, Management, Arts & Commerce and Education.

□ The Department :

Department of Computer Science & Engineering is under the faculty of Engineering, Technology & Management, conducting :

- (i) M. Tech in Computer Science & Engineering (Elective subjects covering three areas namely Computer Science (CS), Information Technology (IT) and Computer Applications (CA) under each of which different subjects are covered like parallel architecture optical networks, real time systems, webmining, data compression & error correction, Bio informatics, VLSI, Technology and embeded systems, Network Administration, Cloud Computing, Authentication & steganography etc.
- (ii) Master in Computer Application (MCA), three-year post-graduate degree course from the session 2001-2002.
- (iii) Ph. D Programme.

□ The Course :

M. Tech course covers contemporary and emerging fields of wide-ranging interests. The curriculum covers a wide spectrum of Computer Science subjects and is revised continuously to meet the growing needs of the industry. The department has a team of committed faculty members, who inculcate students conceptual foundations coupled with practical insights. The width and depth of the courses is complemented by academia-industry interface imparting uniqueness to the post-graduate programme. On successful completion of the course, students may take up either.

- (a) A professional career in the Computer Technology or Software or Computer system or Remote Sensing, security, soft computing, optical network, image processing or specialized application areas.
- (b) An academic career for further study and research in the fundamental and applied aspects of Computer Science and Technology and related disciplines.

□ Duration :

Duration of the Course will be of two academic years consisting of four semesters, each of six months duration. At the end of each semester an examination of the course covered in the semester will be held. This examination will be referred to as M. Tech Examination of that semester.

□ Qualification for Admission :

1st class B. Tech. / B. E. in Computer Science & Engineering / Computer Science & Technology / Information Technology, MCA, ((with Honours (50%) in Phys. / Maths / Stats / Comp. Sc.) or BCA with first class / or any B.E. / B. Tech.) or M.Sc. in Computer and Information Science, preceded by B. Sc. in Comp. Sc. or IT / B. Sc. Com Sc. (General) or equivalent degree from other University. Relaxation of marks for SC/ST candidates as per West Bengal Govt. rules.

□ Course Fees :

Course fees per semester will be Rs. 12,000/- for GATE candidate and Rs. 20,000/- for Non-GATE candidates. Rs. 25,000/- for sponsored candidates (in service) and Rs. 60,000/- for NRI and foreign nationals.

□ Selection Procedure and Student Strength :

Selection is done on all India basis and in accordance with merit, written test and Viva-Voce. Non-GATE candidates can also apply but candidates with valid GATE score will be given preference. Decision of the admission committee is final. Information Brochure alongwith Application form for admission can be obtained from the Admission Section of University of Kalyani between 11.00 am and 3.00 pm on all working days excepting Saturdays, Sundays and holidays from 18th May'11 to 4th June'11 on payment of Rs. 500/- by cash or DD in favour of "University of Kalyani", payable at kalyani. Form can be downloaded from the University web site - www.klyuniv.ac.in. Number of seat is 18.

□ Address Send Application :

The Secretary, Faculty Council (PG), University of Kalyani-741235, Kalyani, Nadia, W. B.

□ Syllabus for Admission Test :

Computer fundamentals logic & organisation, Operating Systems, Compilers, Data Structure, Network, Communication, DBMS, Graph Theory, Discrete Math, Internet, Web technology, Microprocessor, Architecture.

□ Evaluation & Merit List :

Merit List for admission will be prepared as per the rules : 100% of Entrance Exam. + 20% of GATE Score (Percentile, Zero for non GATE candidate) + 50 Marks for interview. A single list will be prepared in each category (General + SC + ST) both including GATE and non GATE candidate.

Attendance :

In order to be eligible for appearing in a semester examination a candidate shall have to pursue a regular course of studies in the subject and attended at least 75% of the theoretical and practical classes separately during the academic session.

Placement :

Since placement of successful student constitute an important aspect of the responsibility of the institutions offering professional course, such as M. Tech, the University takes necessary steps for the student's exposure and healthy interaction with the problems of industry. Placement is done through the leadership of placement officer.

University of Kalyani

Department of Computer Science & Engineering

Curriculum for M. Tech. (CSE)

Semester - I

Paper Code	Paper Name	Weekly Contact Period (WCP)				Credit	Marks			
		Lecture	T	P	Total		S	Exam.	Total	
Theoretical										
CSE 101	Advance Operating Systems	4	0	0	4	4	20	80		100
CSE 102	Image Processing	4	0	3	7	6	20	P-20	Th-60	100
CSE 103	Advanced Mathematics	4	0	0	4	4	20	80		100
CSE 104	Soft Computing	4	0	0	4	4	20	80		100
CSE 105	Design & Analysis of Algorithm	4	0	0	4	4	20	80		100
Practical										
# T-Tutorial, P-Practical, S-Sessional, Th-Theory, A-Assignment										
CSE 101L	Soft Computing Laboratory	-	-	6	4	4	20	A-20, P-50, V-30		100

Total Credit : 26 Total Marks : 600

Semester - II

Paper Code	Paper Name	Weekly Contact Period (WCP)				Credit	Marks			
		Lecture	T	P	Total		S	Exam.	Total	
Theoretical										
CSE 201	Advance Network Security TCP/IP Programming	4	0	3	7	5	20	P-20	Th-60	100
CSE 202	Mobile & Wireless Computing	4	0	0	4	4	20	80		100
CSE 203	Advanced Database System	4	0	3	7	6	20	P-20	Th-60	100
CSE 204E	Elective I(CS)	4	0	0	4	4	20	80		100
CSE 205E	Elective II(IT)	4	0	0	4	4	20	80		100
Practical										
CSE 202L	Advanced Communication Laboratory	0	-	6	6	4	20	A-20, P-50, V-30		100

Total Credit : 28 Total Marks : 600

Semester - III

Paper Code	Paper Name	Weekly Contact Period (WCP)				Credit	Marks			
		Lecture	T	P	Total		S	Exam.	Total	
Theoretical										
CSE 301	Remote Sensing GIS, GPS	4	0	0	4	4	20	80		100
CSE 302E	Elective III (CA)	4	0	3	7	6	20	P-20	Th-60	100
CSE 303D	Thesis I	-	-	16	16	16	20	R-100,P-100,V-100*		300
Practical										
*R-Report, P-Presentation, V-Viva										
CSE 301L	Satellite Image Processing & GIS Lab	-	-	6	4	4	20	A-20, P-50, V-30		100

Total Credit : 30 Total Marks : 600

Semester - III

Paper Code	Paper Name	Weekly Contact Period (WCP)				Credit	Marks			
		Lecture	T	P	Total		Report	Present	Viva	Total
Dissertation										
CSE 401D	Thesis II	-	-	20	20	20	200	100	100	400
CSE 402S	Seminar II	-	-	-	-	2	30	30	40	100
CSE 403GV	Grand Viva	-	-	-	-	4	-	-	100	100

Total Credit : 30 Total Marks : 600

Total Marks for Two Year (4-Semesters) M. Tech. (CSE) Course is 2400, Total Credit is 110.

For sessional at least two intermediate exams are to be taken, average mark will be the sessional marks for each subject. Corrected paper of these intermediate exams is to be returned to the respective student. Topic must be different for each students in Seminar.

■ Elective I (Computer Science [CS])

- i. Parallel Architecture / Processing and Grid Computing
- ii. Theory of Programming Languages / Computing
- iii. Real Time Systems
- iv. Pattern Recognitions

■ Elective II (Information Technology [IT])

- i. Web Mining and Internet Technology
- ii. Data Warehousing and Data Mining
- iii. Management Information Systems
- iv. Advanced Software Engineering
- v. Data Compression & Error Correction
- vi. Optical Networks
- vii. Embedded Systems

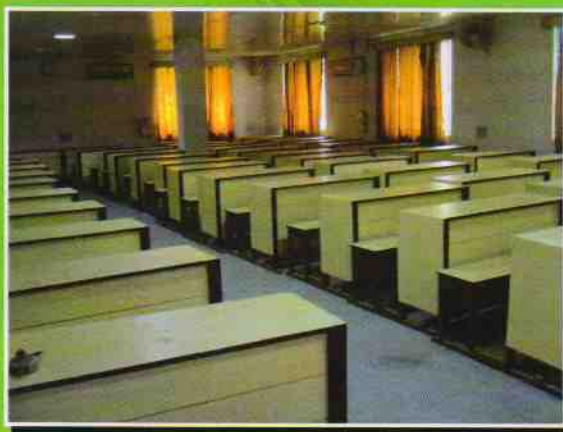
■ Elective III (Computer Application [CA])

- i. Bioinformatics
- ii. Artificial Intelligence and Expert Systems
- iii. VLSI Technology
- iv. Speech & Natural Language Processing
- v. Network Administration
- vi. Cloud Computing
- vii. Authentication & Steganography



□ Library :

In addition to a Central Library in the University, this department has a departmental library for providing easier borrowing and reading facilities to the students.



□ Hostel :

Accommodation in the University hostels shall be available to the students taking admission to the course as per the University rule. Students have to bear the hostel charges and rent as per University rules.

□ **Note :** In matters other than those mentioned above, the rules, practices and principles prevailing in the University shall be applied.

□ Admission Schedule of M. Tech (CSE) 1st Sem-2011 :

□ Forms Distribution	: 18th May to 4th June, 2011
□ Last date of Receiving Application form	: 4th June, 2011
□ List of Eligible Candidate for the Written Test	: 10th June, 2011
□ Date of Written Test	: 13th June, 2011
□ List of Eligible Candidate for the Interview	: 21st June, 2011
□ Date of Interview	: 24th June, 2011
□ Publication of List of Selected Candidates	: 27th June, 2011
□ First Counseling for Admission from the First List	: 4th July, 2011
□ Second Counseling for Admission	: 11th July, 2011
□ Commencement of Classes	: 22nd July, 2011
□ Counseling for Vacant Seats	: 10th August, 2011 (if required)

□ For any Further Information Contact :-

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