



MAULANA ABUL KALAM AZAD  
UNIVERSITY OF TECHNOLOGY,  
WEST BENGAL



MAKAUT

<https://makautwb.ac.in>



NH-12(Old NH-34), Simhat, Haringhata, Nadia, Pin - 741249

School  
of  
Computer Science & Engineering



**Prof. Dr. T. S. Sinha**

### **Directors' Speak**

**Prof. Dr. T. S. Sinha**, born in July 1968 in Dhanbad district, Jharkhand, India, has received his B.E. in Computer Technology Engineering from Nagpur University, Maharashtra, India, in 1992. He has obtained his M.S (Engg.) degree in Electrical Engineering (Power Electronics Specialization) from National Institute of Technology, Jamshedpur, Jharkhand, India. He has obtained his Ph.D degree in Computer Science & Engineering from National Institute of Technology, Durgapur, West Bengal, India, in the area of Speech Processing.

He possesses an experience of more than 24 years in the field of computers through software development, teaching and research. He has published considerable amount of papers in International & National Journals/conferences and also published book chapters and edited one book at International level.

His research interest includes Digital Signal and Image Processing, Natural Language Processing, Soft-Computing techniques. He is presently working as a Director – School of Computer Science and Engineering at MAKAUT, West Bengal, India.

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## VISION:

The Department of Computer Science and Engineering will be a Centre of Excellence which will produce professionals with problem solving skills in the field of Computer Science and Engineering, awareness of the contemporary industrial need, ability to do research in relevant areas, with innovative leadership quality, with the quality of responsible citizenship and the philanthropic attitude and towards society.

## MISSION:

- M1.** To excel in teaching, training and research for developing world class professionals and knowledge generation in the field of Computer Science & Engineering and allied fields.
- M2.** To inculcate innovative mindset and entrepreneurial activities, leadership development among the learning community.
- M3.** To develop compassionate and sincere human resources for rendering services to the society.
- M4.** To cater to the need of the industries by taking up the research consultancies and with the supply of skilled and competent professionals.
- M5.** To foster networking and collaboration with premier academic, research institutes and industries.



**Dr. Suparna Biswas**

### Message from Head of the Department

A team of well qualified faculty that keeps their knowledge up to date by attending conferences and workshops on a regular basis is a major asset of the department.

With rapidly evolving technology and the continuous need for innovation, the Department has always produced quality professionals, holding important positions in Computer Science & Engineering and other Industries in India and abroad.

The Department moulds young outstanding engineers who are academically strong in both theory and practical. The department is constantly producing good results in University.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

1. The graduates of the Program will have solid foundation in the principles and practices of computer science including mathematics, science and basic engineering.
2. The graduates of the programs will have the skills to function as members of multidisciplinary teams and to communicate effectively using modern tools.
3. The graduates of the program will be prepared for their careers in the software industry or pursue higher studies and continue to develop their professional knowledge.
4. The graduates of the program will practice with ethics, integrity, leadership and social responsibility.



## Our Campus

The University's 40-acre campus isn't just a gorgeous place to call home; it's an inspirational place where cutting-edge technology combines with breath-taking nature and where a world of discoveries awaits you!

**The Department of Computer Science & Engineering** has a team of highly qualified, experienced, and dedicated faculty members who devote their time not only to teaching but also for the overall development of the students. Further, faculty from other renowned institutions are invited to deliver guest lectures to help augment their studies beyond the syllabus. We are confident that the students passing out from this university will be technically sound, confident, and have good leadership skills.

## About The Department

# Courses Offered

All courses offered by the department of CSE are All India Council for Technical Education (AICTE) approved. The courses are given below:

- **B.Tech in Computer Science and Engineering** (Estd. in the year of 2006)
- **M.Tech in Computer Science and Engineering** (Estd. in the year of 2003)
- **M.Tech in Software Engineering** (Estd. in the year of 2003)



## Eligibility of Admission to B.Tech

- **Merit Rank** -candidates having Engineering 'General Merit Rank' (GMR) in WBJEE -2020
- **Age** - Candidate must be 17 years of age or above as on 31.12.2020.
- **Educational Qualification** - Must have passed the Qualifying Examination i.e. the '10+2' examination with Physics and Mathematics along with any one of Chemistry / Biotechnology / Biology / Computer Science / Computer Application Technical Vocational Subject as compulsory subjects with individual pass marks (in both theory and practical wherever applicable) in all the three subjects as stated above in regular class mode. Must have obtained at least 45% marks in the above three subjects taken together. Must have passed English in the '10+2' examination with at least 30% marks.

## Eligibility of Admission to M.Tech

- Valid **GATE** (Graduate Aptitude Test) score card.
- Valid **PGET** (Post Graduate Entrance Test conducted by MAKAUT, WB) score card.
- B.Tech. Marks.

## Intake Capacity

**B.Tech** in Computer Science & Engineering - **60**

**M.Tech** in in Computer Science and Engineering - **30**

**M.Tech** in Software Engineering - **30**

# Placement Opportunities

**Linkage with Institution/Industries for internship, on-job training, project work, sharing of research facilities etc.**



## List of Industries

- Infosys Limited
  - Cognizant Technology Solutions
  - Tata Consultancy Services
  - Wipro limited.
  - Subex Limited
  - Iconma
  - EPAM Systems, Inc.
  - Mindtree Limited.
  - L & T Infotech Limited.
  - Interview Street Technologies Private Limited
  - Google BPO.
- ..... & more .....



# Admission Procedure

## ***Eligibility of Admission to B. Tech:***

- ✚ Candidates having Engineering 'Merit Rank' in WBJEE
- ✚ Candidates must pass Higher Secondary (10+2) Examination of West Bengal Council of Higher Secondary Education or equivalent examination from a recognized Council/Board in regular class mode with
  - Individual pass marks in Physics, Chemistry and Mathematics as compulsory subjects and
  - Minimum of 45% marks in the above subjects taken together (40% for SC / ST / PwD / OBC-A / OBC-B Candidates) in the said qualifying examination.



**LARGEST AFFILIATING UNIVERSITY  
IN WEST BENGAL PROMOTING  
EDUCATION AND RESEARCH**

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY , W.B

## **Eligibility of Admission to M.Tech**

- ✚ Valid PGET (Post Graduate Entrance Test conducted byMAKAUT, WB) score card and B.Tech. Pass marks.
- ✚ GATE qualified candidates are given preference

## **Course Fees**

For detail course fees visit: <https://makautwb.ac.in/page.php?id=220>

## Curriculum

The Academic Syllabi have been designed with the inclusion of most advanced and modern concepts in all the engineering disciplines covered by the University making the curriculum highly relevant both nationally and internationally.

## Industry-Academia interaction

It is a regular practice of the University to invite Industry experts who are also invited to deliver lectures and share experiences of industry. Academicians from institutions of repute are invited to deliver extension lectures for students as well as faculties to encourage their research aptitude. The Department houses courses in collaboration with renowned industry partners to increase the skills and employability of the young generation.

## Teaching Learning Process

The Department carries out its teaching-learning process in Smart Class rooms and makes use of modern methods of teaching that are in vogue (lectures supported by teaching aids, computer projection, demonstration, live modelling, peer tutoring, collaborative learning, flipped learning, and the use of learning management system are being regularly practiced). The campus is fully WiFi enabled and the Departments encourages its faculty members to use Virtual Labs in practical sessions to expose the students in cutting-edge and / emerging subjects through these labs.

The Department has introduced problem and project based learning in its classes where students are asked to work on Case Studies for application of their theoretical knowledge. Workshop based learning is being given importance that includes hands-on training sessions and project based demonstrations on the latest cutting edge technologies. Practical applications have been demonstrated in workshops on Cyber security, Machine Learning, Data Science etc. Students demonstrate their analyzing power and creativity by participating in Hackathons, other competitions in which they exhibit their innovations, and work on live projects of the University, Industry and externally funded projects.

*Syllabus (Please click on the link):*

***B.Tech in CSE***

***M.Tech in CSE***

***M.Tech in SE***



GET JOB ORIENTED SKILLSETS  
AND BECOME INDUSTRY READY

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY , W.B

Vice Chancellor & Education Minister, WB

**Exam Related Query & Information (Please click  
on the link):**

***CONTROLLER OF EXAMINATION, MAKAUT***

***In- House Placement Record (Please click on the  
link):***

***PLACEMENT FACILITIES AT MAKAUT, WB***



MAKAUT, Front View

## The Library

The library was founded in 2004 with a few book racks and some donated books. Now it is a fully functional hybrid library where it is now possible to access information about the physical items as well as the digital holdings in the form of e-books and e-journals, multimedia CDROMs and software from anywhere through a single unified web based interface ( library portal <http://library.wbut.ac.in>) .

The Library has both e- resources and print resources. It has a total collection of 25965 books among which 10131 are e-books , 6000 ( approx.) e-journals 20 print journals including 4 foreign journals .The library has also purchased the e-collection of Annual reviews back volume. The library also has a good collection of CDs, audio Cassette and DVD . The library is focusing on e-resources due to shortage of space.

The University library is now member of E-Sodh -Sindhu (UGC Infonet) Digital Library consortia. University is getting e-journals like IEEE, Cambridge University Press, Economic & Political Weekly, ISID, JCCC, Oxford University Press, Springerlink, Taylor & Francis from the consortia. and University itself is subscribing e-journals like IEE, Elsevier, Springer Nature, ACM Digital Library, JAmerican Society for Biochemistry and Molecular Biology , Taylor and Francis, etc..

As a part of a centre of excellence the library tries to provide modern web based services along with the traditional services like reading room, lending, and photo copying services.

The library is an open access library which gives its user the facility to directly go to the rack and choose his/ her own books. The reading room has a seating capacity of 56 user at a time. It also has 10 terminals running on LTSP system used for digital library facility. On an average 60- 70 students use the library per day.

Library is giving fully automated lending services to the students along with the faculty members using library management software KOHA. Every student has a login password to access the catalogue from user interface and reserve books. Students can also see their status i.e., whether book is overdue or not, the reading history etc. from their account.

The library has Web OPAC (URL <http://opac.wbut.ac.in>) facility where all users including students, faculty members, researchers and others can browse through for information regarding library resources from anywhere within the campus and outside the campus. There are two dedicated machine for searching library resources through library portal near the library entrance to facilitate its users. Students and university staffs can browse the Internet and the e-resources subscribed to by the university through the computers in the reading room as well as from anywhere within the campus

## The Library (...)

Users become aware of the library rules and regulation and how to use the services through library portal. The library alerts the user through notification about the library programme and activities using university's e-mail service. Since all university classroom are projection enabled and connected to the internet, digital resources like images of the CDs accompanying the books, e-books, e-journals of the library can be accessed from class rooms to aid the teaching.

The library is using a single interface, the library portal ([http:// library.wbut.ac.in](http://library.wbut.ac.in)) where the information about library holdings be it the printed collection or the e collection can be obtained through the open source ILS system KOHA. It is the first open source ILS system distributed under GNU GPL license. Barcodes generated in house are used to track down each printed item in the catalogue in day to day transaction. E.g. Circulation. Glabells is used to generate the barcode. The Koha ILS has been extended to digital library through the integration of a media image server for online, simultaneous, multi -user access to CD/DVD media accompanying print items or otherwise separately published. The media image server can also be searched separately using Namazu. The university library is completely networked. The users can access the electronic resources and the Internet through the desktops in the reading room. As the university in connected through Intranet, library resources can be accessed from anywhere within the campus. The library is also has Wi-Fi connectivity. Users can access the Internet from the library reading room through Wi-Fi connectivity from their laptops subject to authorization.

Library is outsourcing the photocopying service and network printing. Photo copy can be done for Re. 1.00 / page. The network printing service can be accessed from anywhere within the campus.

The library kept open beyond the normal working hour by the students under university's "Earn While You Learn Programme". Till now library has given support to 214 students under this scheme. This year (2009) 65 students are working under this scheme.

An access ramp has been constructed for the physically challenged users. The ramp is directly connected to the reading room to make the library easily accessible to the physically challenged.

Keeping in mind the equal opportunity for all, the university is planning to build an e-resources consortia covering the colleges affiliated to MAKAUT, WB. It is in initial stage. The university has got some proposal from the publisher's side. We are working on that.

Keeping in mind the equal opportunity for all, the university library resource is open to all students and faculty members of affiliated colleges. They can use the university reading room service, can select their books and journals, copy the relevant portion and can also photo copy a limited numbers of pages. They can also use the library e-resources, download and can take print required portion using the networked printer. The students and faculty members only needed to bring their college ID card to enter the library.



Canteen



## URLs for e-resources subscribed/purchased by MAKAUT, WB

E-resources from E-sodhsindhu <https://www.inflibnet.ac.in/ess/eres.php?memID=251>

Annual reviews back volume (1980 -2005) <http://www.annualreviews.org/>

Elsevier books <http://www.sciencedirect.com/science/bookbshsrw>

Cambridge university press e-books <https://www.cambridge.org/core/browse-subjects/computer-science>

Oxford e -books <http://oxfordscholarship.com/>

Springer e-books <http://link.springer.com/>

LNCS 2013 <http://www.springer.com/gp/computer-science/lncs>

Pearson e-books <http://lib.myilibrary.com/Browse.aspx>

Taylor and Francis e-book [www.crcnetbase.com/isbn/](http://www.crcnetbase.com/isbn/)

Nature <http://www.nature.com/nature/index.html>

Nature Biotechnology <http://www.nature.com/nbt/index.html>

Nature Nanotechnology <http://www.nature.com/nnano/index.html>

Economic and political weekly [http://www.epw.in/?ip\\_login\\_no\\_cache=0fc34598e670dd438429a6cc39676dd4](http://www.epw.in/?ip_login_no_cache=0fc34598e670dd438429a6cc39676dd4)

JCCC <http://www.jccc-ugcinfonet.in/Search/QuickSearch.a>

ACM Digital library <http://dl.acm.org/>

J-Gate <http://www.jgateplus.com/jgateadmin>

Biopolymers [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1097-0282](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1097-0282)

### FEBS letters

<http://onlinelibrary.wiley.com/advanced/search/results>

[http://onlinelibrary.wiley.com/doi/10.1016/0014-5793\(87\)80408-8/full](http://onlinelibrary.wiley.com/doi/10.1016/0014-5793(87)80408-8/full)

Proteins : structure, Functions and bioinformatics <http://onlinelibrary.wiley.com/doi/10.1002/prot.24703/full>

Molecular Cell <http://www.cell.com/molecular-cell/home>

Cancer Cell <http://www.cell.com/cancer-cell/home>

Cell <http://www.cell.com>

### International Journal of Information

Management <https://www.journals.elsevier.com/international-journal-of-information-management>

Journal of Biological Chemistry <http://www.jbc.org>



# Research Area

## Thrust areas of research includes: -

- i. Cloud Computing
- ii. Mobile Computing
- iii. Block-chain
- iv. Computational Nanotechnology
- v. Internet of Things,
- vi. Network Security
- vii. Mobile Computing
- viii. Remote Healthcare
- ix. Computational Biology
- x. Bio Informatics
- xi. Artificial Intelligence and Machine Learning.
- xii. Big data analysis and application
- xiii. cryptography
- xiv. Data mining
- xv. Testing and Synthesis of Reversible Circuits.
- xvi. Smart Farming
- xvii. Natural Language Processing
- xviii. ICT Based Teaching- Learning and Assessment
- xix. Voice Processing
- xx. Image Processing
- xxi. Embedded System Design
- xxii. Computer architecture
- xxiii. Re-configurable Architecture using FPGAs
- xxiv. Software Defined Radio
- xxv. VLSI design
- xxvi. Digital Signal Processing
- xxvii. Gesture Recognition
- xxviii. Internet of Vehicles
- xxix. Cognitive Radio
- and
- xxx. Vehicular Adhoc network.



Boy's Hostel



Girl's Hostel



**Dr. Sriyankar Acharyya**  
Professor



**Dr. Pradyut Sarkar**  
Associate Professor



**Dr. Koushik Majumder**  
Associate Professor



**Dr. Amiya Karmakar**  
Assistant Professor



**Dr. Suparna Biswas**  
Associate Professor &  
HoD



**Dr. Santanu Phadikar**  
Associate Professor

OUR  
Faculty  
Members



**Dr. Saikat Basu**  
Associate Professor



**Dr. Sriparna Saha**  
Assistant Professor



**Dr. Sujoy Mistry**  
Assistant Professor



**Mr. Mihir Sing**  
Assistant Professor



**Ms. Rupali Patua**  
Assistant Professor

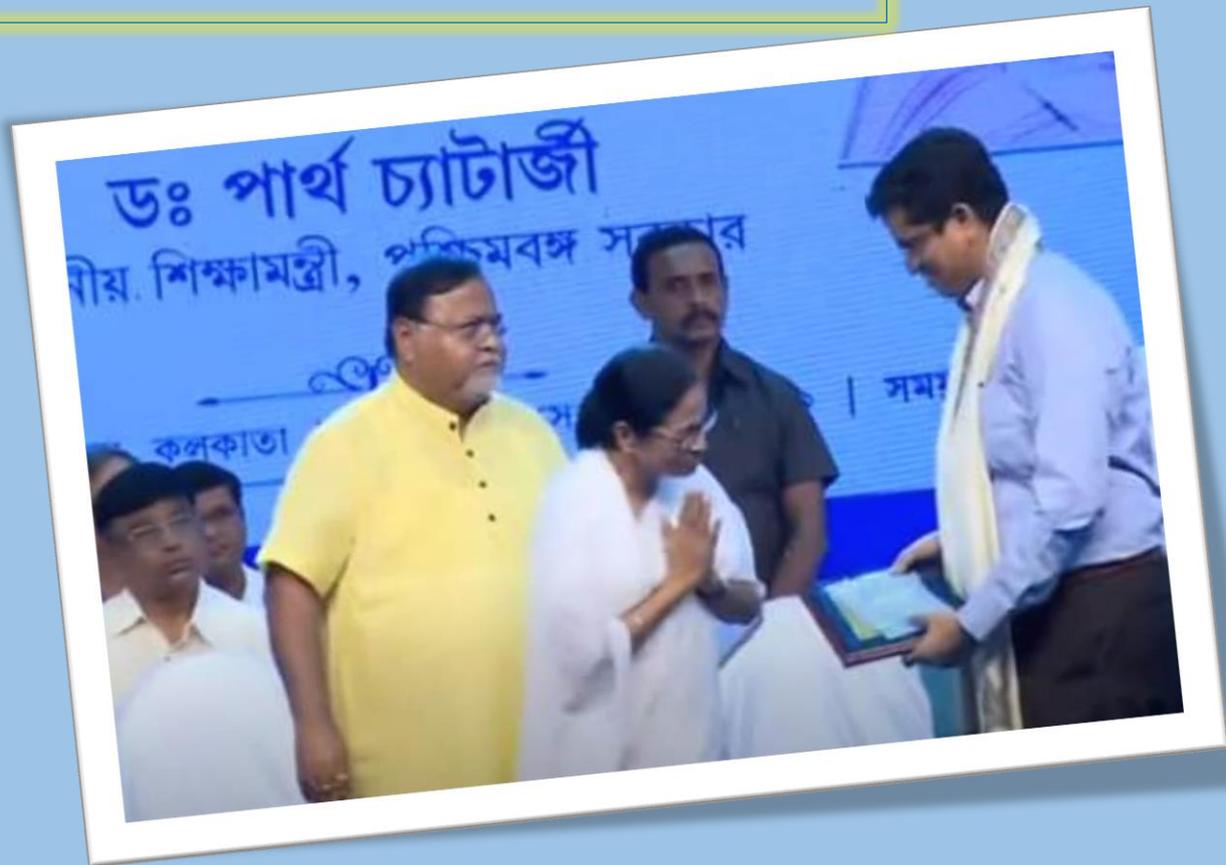


**Mr. Santanu Chatterjee**  
Assistant Professor



**Mr. Subhanjan Sarkar**  
Assistant Professor

## Events, Awards & Achievements



West Bengal Shiksha Ratna Award 2020



**ISEA Project Phase II Faculty Development Program Sponsored by Department of Electronics and Information Technology, Government of India**