

SAYAK MITRA

CONTACT INFORMATION B-209, RP Hall of Residence,
Indian Institute of Technology, Kharagpur
West Bengal - 721 302. India

Tel. +91 9836007850
Email: mitra.sayak@gmail.com

ACADEMIC PROFILE I am currently pursuing B-Tech.in the Department of Computer Science and Engineering.
Presently in seventh semester, my statistics are as follows :

Year	Examination	Degree/Certificate	Institution	Marks Obtained
2005	Class X	ICSE	St. Stephen's School	88.7%
2007	Class XII	CBSE	B. D. Memorial Institute	83.33%
2007 till date	Till 6th Semester	B-Tech, Computer Science and Engineering	Indian Institute of Technology, Kharagpur	CGPA = 7.0 (on a scale of 10)

B-TECH PROJECT Currently working under the guidance of Professor Partha Sarathi Dey on mobile communications.

- Aim is to design and implement a device capable of remaining active in the domains of multiple service providers, all at the same time using TDMA (Time Division Multiple Access) .

SUMMER INTERNSHIP Worked for Micro Systems Foundation, using the Wavecom Module (Q2686) as the hardware and a list of ADL (Application Development Layer) Commands , AT-Commands (initially designed to control modems) and C-programming as the software interact, on the the following projects :

- Project covering Data-packeting and optimization of Vehicle Tracking System based on GPRS , GSM and SMS Technology.
- Project covering design and implementation of an Alarm System based on SMS technology.

PROJECTS UNDERTAKEN

Cryptography: Under the supervision of Professor D. Mukhopadhyay, Analysis and finding collision points of MD4 hash function following Martin Schlaffers Master Thesis. Hence implementing attacks on it via Dobbertin, Chabaud and Joux and Wang et al methods.

Networking: Under the guidance of Professor Niloy Ganguly , Design and implementation of a peer to peer network of reduced redundancy and analysis of its efficiency against the existing Gnutella network.

SEMESTER PROJECTS	<ul style="list-style-type: none"> • Design and implementation of a Compiler using flex, bison and C programming based on LALR (0) parsing mechanism. • CPU Design on an FPGA kit with limited instruction set using verilog. • Developed a blogging website with facility for multiple users , posting of reviews and an all access administrator account. • Modification of buffer management techniques for PostgreSQL (LRU , MRU and CLOCK). • Implementation of a Web Search Engine, using ranked retrieval and Porter Stemmer in python. • Client - Server Programming using Berkeley Sockets (both TCP / IP and UDP) 	
TECHNICAL SKILLS	Programming Languages: C, C++, Visual Basic, Java, Assembly language for MIPS 2000 (x86-64 Pentium Machines), Verilog, Basic, Python.	
	Web-Designing: HTML , PHP , Javascript .	
	Operating Systems: Windows (98, XP, Vista, 7), Linux (Ubuntu, Mandriva, Fedora, Red Hat).	
	Others: Photoshop, Corel Draw, Pagemaker, MS Office, Xilinx, Matlab, Scilab, Smart Draw, Bison, Flex, Autocad, MYSQL, L ^A T _E X.	
RELEVANT COURSES UNDERTAKEN	<ul style="list-style-type: none"> • Algorithms I* • Discrete Structures • Electrical Technology* • Introduction to Electronics* • Digital Electronic Circuits • Compilers* • Operating System* • Artificial Intelligence • Theory of Computation • Information Retrieval • Computer Networks* 	<ul style="list-style-type: none"> • Algorithms II • Formal Language and Automata Theory • Switching Circuits and Logic Design* • Probability and Statistics • Computer Organization and Architecture* • Signals and Networks* • Database Management System* • Machine Learning • Ubiquitous Computing • Engineering Drawing and Computer Graphics • Introduction to Financial Management
	* Includes laboratory component	
EXTRA-CURRICULAR ACTIVITIES	<ul style="list-style-type: none"> • Member of the National Service Scheme (NSS), at IIT Kharagpur from July 2007 to April 2009. • Member of the gold winning Rangoli team of R. P. Hall (2010). • Participated in Inter Hall activities like Illumination and Chem Innovation. • Member of the Aquatics Society, IIT Kharagpur. • Involved in playing Table Tennis and Cricket. 	