# Sujoy Mukherjee

#### Personal Details:

Designation : B.Tech (Electronics & Communication Engineering)

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### Educational Qualification:

Examination Passed	Board/University/ Institute	Year of Passing	Result
B.Tech (presently in 4 <sup>th</sup> Year)	West Bengal University of Technology (WBUT) [Institute: Heritage Institute of Technology (HIT,K)]	2005	7.59 [10 scale] (CGPA) 7.55 (DGPA)
Higher Secondary (12 <sup>th</sup> Standard)	West Bengal Council of Higher Secondary Education [Institute: South Point High School]	2001	724 (72.4%)
Madhyamik (10 <sup>th</sup> Standard)	West Bengal Board of Secondary Education [Institute: South Point High School]	1999	647 (80.875%)

# Projects

Developed a "Digital Clock" during the project session organized by HIT,K
in collaboration with Electronics Testing & Development Center (ETDC).
[Project Report]

 $<sup>\</sup>blacksquare$  The main theme was to use IC 7490, 7447 & 5001 and design Sequential Circuit (Counter designing with MOD-2 MOD-5 -the two most basic blocks of IC 7490).

 $<sup>\</sup>square$  The two counter ICs (IC 7490) were used in such a way that this portion produces output from 00 to 59 continuously with a frequency of 1 Hz (1pps).

 $f \Box$  Driver IC (IC 7447) and seven-segment display (IC 5001) was used to display the counts. Both the ICs are of common anode type.

- 2. Developed a "Robotic Arm" using microprocessor and 8051 family microcontrollers as the final year project of the B.Tech course curriculum. [Project Report]
  - f Q 8051 Assembly Language Programming forms the basis of the project.
  - f u Programming the 8031 microcontroller to drive the stepper motors acting as load.
  - floor The action of the stepper motors plays the important role; one in the elbow-joint for movement of the arm and the other in the wrist to pick up desired objects.
  - $\square$  IC 8255A (PPI) is acting as an interface with the 8031 as well as the stepper motor.
  - $\square$  The program stored in AT28C64 (EEPROM) is accessed by 8031, which drives UNL2003 through IC 8255A PPI.

# Training/Courses:

- 1. Undergone training at BSNL, District Telecom Training Center, Kolkata. [Project Report]
- 2. Completed a course in C++ & Visual Basic (held jointly by CMC & Heritage
- Institute of Technology).

  3. Completed a course in PC Assembly and Troubleshooting from CMC in collaboration with Heritage Institute of Technology.
- 4. Placed in Grade C (=>Good) at the "Project Impact" dealing with "Core Java" organized by Salt Lake Campus (2<sup>nd</sup> Campus), Jadavpur University; the course coordinator being Prof. Samiran Chattopadhyay.

# Professional Memberships:

- 1. IEEE (Institute of Electrical and Electronics Engineers)
- 2. IEEE Computer Society
- 3. CSI (Computer Society of India)

# Other memberships:

- 1. British Council (India, Kolkata center)
- 2. RMIC (Ramakrishna Mission Institute of Culture)

## Skills & Proficiencies:

Programming Languages	C, C++, 8051 & 8085 Assembly Language programming, MATLAB, Java (core), VHDL		
Operating Systems	Windows $9x/2000$ (Advanced Server, Professional), Windows XP, DOS		
Software Packages	PSpice, Circuit maker, ModelSim, Borland C++/TC, Visual C++, MS-Office 2000/2003, CorelDraw 12, Adobe Photoshop 7.0, Dreamweaver MX, Flash MX Professional, Sound Forge 7.0		

# Articles/Papers:

Papers presented/ submitted [Contest titles]	Paper title	Venue (year)
"Web-Content Development Contest"	"Electric Power Generation and Green Power Manifestation—the issue of the Modern Era?" [.zip file]	
"2004 IEEE Conference on the History of Electronics"	"Microwaves—A Journey in reshaping World Technology" [.pdf file]	Bletchley Park, UK (2004)
CSI Heritage Branch Chapter	"Ad Hoc Mobile Wireless Networking"	Heritage Institute of Technology, Kolkata (2004)
"TECHSCRIBE - IEEE National Student Paper Presentation Contest"	<ol> <li>"Ad Hoc Mobile Wireless Networking" (accepted &amp; awarded) [.pdf file]</li> <li>"Implementation of Fuzzy Logic in Real-life applications" [.pdf file]</li> </ol>	

# List of Seminars

- 1. Wavelet Transform (fundamentals and applications) [venue: College seminar hall]
- 2. BEES Exploring Mars with Bioinspired Technologies [College Campus] [venue: College seminar hall]
- 3. Invited talk on the paper "Microwaves—a journey in reshaping world technology" presented at the 2004 IEEE Conference at UK [Venue: Jadavpur University Conference hall organized by AP-MTT Chapter of IEEE Calcutta Section]

# Areas of Interest:

- 1. Microelectronics & VLSI
- 2. Wavelet Transform
- 3. Biomedical Electronics

# Major Subjects covered during B. Tech:

- Microelectronic Technology & Circuits,
- VLSI Design,
- Solid State Devices & Circuits,
- Analog & Digital Communication,
- Analog & Digital Electronic Circuits,
- Digital signal Processing,
- Line Communication,
- Data Structures & Algorithms,
- Numerical Methods & Programming,
- EM Theory, Antenna & Propagation,
- Microprocessor & Microcontroller,
- Linear & Digital Control Systems,
- Engineering Mathematics,
- Audio & Video Engineering.

#### Awards Received:

- Received the "Certificate of Merit" from Prof. Saifur Rahman (VP, IEEE-Power Engineering Society, Director Alexandria Research Institute, Virginia Polytechnic, USA) for the best web content developed for the "Web-Content Development Contest" organized by IEEE Calcutta Section. URL:http://www.ewh.ieee.org/soc/pes/calcutta/student.html#2003
- 2. Declared the IEEE Region 10 (Asia-Pacific) topper award for the paper for "2004 IEEE Conference on the History of Electronics" and won a trip to Bletchley Park, UK to present the paper with all expenses paid by IEEE. URL:http://www.telegraphindia.com/1040625/asp/calcutta/story\_3412782.asp, http://www.geocities.com/sujoymukherjee\_82/file1/IEEE\_region10topper.jpg
- 3. Received the "First Prize" award for the best poster and the paper for the Conference so mentioned and awarded with certificates (one for the world topper and the other for the region topper), cash prize(US\$ 200), memento and IEEE branded shirt by IEEE Presidents for the years 2001, 2002,2003,2004.
  - URL:www.ieee.org/organizations/history\_center/Che2004/contest.html
    http://www.telegraphindia.com/1040720/asp/calcutta/story\_3505631.asp,
    http://www.geocities.com/sujoymukherjee\_82/file1/IEEE\_all\_region\_topper.j
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- 4. Felicitated by Antennas & Propagation Microwave Theory & Techniques Joint Chapter (AP-MTT), IEEE Calcutta Section, with a "Certificate of Merit" and a "Plaque" for topping the 10 regions of IEEE at the "2004 Conference on the History of Electronics" at UK as mentioned.
- 5. Awarded the "Certificate of Merit" for the paper "Ad Hoc Mobile Wireless Networking" during Techscribe2004 organized by IIT Guwahati. (URL:www.iitg.ac.in/paperpresentation/techscribe/newsitems/accep1)
- 6. **Felicitated** with a "memento" at the  $26^{\rm th}$  Annual General meeting of IEEE Calcutta Section held at the Calcutta Club for the outstanding achievements in the year 2004 on Thursday,  $27^{\rm th}$  of January, 2005.

#### References:

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Prof. B.B.Paira
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Prof. Subhashis Sengupta
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