

# Rachit Kumar

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## Education

### Sept'07-March'09 : **Master of Science in Mechatronics**

Hochschule Ravensburg-Weingarten, Weingarten, Germany  
Final Grade: 1.3\*\* (Best student award with Gold Coin)  
Web: [www.hs-weingarten.de](http://www.hs-weingarten.de)

### July'03-July'07 : **Bachelor of Technology in Electronics & Communication Engineering**

Jamia Millia Islamia, New Delhi, India  
Grade: 7.78/10 (First Division)  
Web: [www.jmi.nic.in](http://www.jmi.nic.in)

## Projects/Relevant Experience

### Sept'08-March'09 : **Master Thesis, EnOcean GmbH, Oberhaching, Germany ([www.enocean.com](http://www.enocean.com))**

Development of an automated testing framework for rapid verification of hardware/software aspects of the developed ASIC API.

Recipient of Industrial Scholarship at 1000 euros/month for Master Thesis.

### March'08-July'08 : **Scientific Project, Hochschule Ravensburg-Weingarten, Germany**

Development & investigation of Cooperative Behavior in a team of small mobile robots (implementing I<sup>2</sup>C Bus System).

### March'08-July'08 : **HiWi Job, Hochschule Ravensburg-Weingarten, Germany**

Cross-Compiler coding of Freescale 68k architecture Coldfire Microprocessor.

### Jan'07-May'07 : **Bachelor Thesis, Jamia Millia Islamia, Delhi, India**

Development of Electronic Control Unit (ECU) for Evaporative coolers enabling water and electricity conservation implementing fuzzy logic.

### June'06-July'06 : **Summer Training, DUCAT, Noida , India**

Embedded Systems training (microcontrollers like 8051, ARM7TDMI , PIC).

### Dec'05-Jan'06 : **Trainer, KGW Appin Knowledge Solutions Pvt. Ltd., Delhi, India**

Provided technical training on Embedded Systems(Atmel 8051), Robotics, stepper motor control, LCD module interfacing, DC motors.

### Aug'05-Nov'05 : **Bachelor's Mini-Project, Jamia Millia Islamia, Delhi, India**

Development of fully autonomous Metal Detector robot.

### June'05-July'05 : **Summer Training, KGW Appin Knowledge Solutions Pvt. Ltd., Delhi, India**

Embedded Systems(Atmel 8051) basics & interfacing and robotics.

\*\* Interpretation of Marks according to German ECTS system:

1.0-1.5 excellent

1.6-2.0 very good

2.1-2.5 good

2.6-3.5 satisfactory

3.6-4.0 sufficient

4.1-5.0 fail

## Skills

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<b>Microcontrollers :</b>	8051, PIC, Coldfire v4.0, ATmega 8/16, ARM7TDMI, EO3000I.
<b>Programming Languages:</b>	C/C++, Shell Scripting(BASH), assembly language.
<b>IDE<sup>++</sup> :</b>	KEIL, MPLAB, AVR Studio, CodeWarrior, Dolphin Studio.
<b>Simulation Tools :</b>	MATLAB & Simulink(Version 7.0), PSPICE(basic), Xilinx(basic).
<b>Hardware Tools :</b>	PC Bus, NI DAQmx - 6212(Data Acquisition) , UART, Oscilloscope, Logic Analyzers.
<b>OS Platforms :</b>	Windows, uCLinux (Embedded Linux), Cygwin, SUSE Linux.
<b>Other Tools :</b>	Eagle (PCB Designing), Mantis (Bug Tracking System), CVS.
<b>Theoretical Knowledge :</b>	DSP, Analog Electronics, CAN, SPI, Control Systems, Robotics, MEMS.

## Languages

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- **English:** Excellent proficiency in speaking & writing.
- **German :** Basic skills in speaking & writing.
- **Hindi :** Excellent proficiency in speaking & writing.

## Interests

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Music, Badminton, Swimming, Adventure sports, philately, cooking.



Rachit Kumar

17<sup>th</sup> June, 2009, New Delhi