

# AMIT ANEJA

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**OBJECTIVE** To Pursue Graduate Studies majoring in Electrical Engineering with Communications & Signal Processing as my Area of Concentration and to be part of various challenging projects where I can utilize my design/analysis experience to provide engineering solutions.

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## EDUCATION

Degree B.Tech, Electronics & Instrumentation Engineering  
Institute T.I.T & S , Bhiwani, India  
Year of Passing June, 2004  
Marks Obtained 71.3 % (Percentage System Followed)

## TECHNICAL SKILLS

Language : Pascal, C, C++  
Platforms : Unix, Linux, Dos, Window 9x/2000/NT/me/xp  
Assembly Language : Microprocessor 8085, 8086, Microcontroller 8051 (MCS51)  
Packages : MATLAB, PSPICE, ASP, Macromedia Dreamweaver, Acrobat Professional, Photoshop  
Telecom & Data Communication : GPRS, GSM, SS7 Stack, Alcatel MME10 Switch  
Networking Tools and Protocols : SNMP, TCP/IP, FTP, HTTP 1.0 and HTTP1.1.

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## PROFESSIONAL EXPERIENCE

Organisation : IDS INFOTECH LTD ( [www.idsil.com](http://www.idsil.com) ) , June 2004 to Present  
Abstract : Working as Research Engineer in the R & D Department as a member of the Research Team that provides Software Solutions to the Telecom clients of the company. Other job responsibilities involve Teaching and Training the Engineering Trainees in the field of Communication Systems, and Intelligent Networking for Wireless Systems.

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## SUMMER TRAINING/INTERNSHIP

Organisation : Alcatel India Limited ( [www.alcatel.co.in](http://www.alcatel.co.in) ), Jan-May 2004  
Abstract : Digital Switching Systems, SS#7 Stack & Intelligent Networking.

Organisation : Defence Research & Development Organisation (DRDO) , Ministry of Defense, Govt. Of India ( [www.drdo.org](http://www.drdo.org) ), June-July 2003  
Abstract : Wireless Networking and Networking Techniques,

Organisation : C.E.D.T.I, Ministry of Information & Technology, Govt. Of India ( [www.cedtimohali.org](http://www.cedtimohali.org) )  
Abstract : Microcontroller its Architecture and Programming , June-July 2002

Organisation : India DotCom Technologies Pvt. Limited, New Delhi, June-July 2001  
Abstract : Worked as a Team Member in developing the portal " kabadibazaar.com".

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## PROJECTS UNDERTAKEN

(1) Project : Testing and simulation of various test conditions in the switch and analysis of SS#7 signalling.  
Summary : Line signaling analysis of SS#7 signalling using SS#7 analyzer under various test conditions by tapping the signals at the Digital Distribution frame (DDF) when the calls are made from MM E10 (Alcatel OCB switch) to a Private Operator switch or the Mobile Switching Center (MSC) in the GSM network.  
Work Area : Alcatel India Limited (Subsidiary of Alcatel, France)

**(2) Project : Emphasis Detection of Speech for Characterization of meeting recordings.**

Summary : A system is designed that extracts segments of speech from meeting recordings in which the speaker is excited or applying extra emphasis. This goes one step beyond a simple speech recognition and verification system where just the words said by the speaker are determined but nothing is said about the way the speaker is speaking those words. The possible applications can be automatic detection of emotions such as fear, panic that can be used for initiation of automatic calls for help. Also, detection of emphasis, excitement, or anger can be used in automatic transcription or summarization systems to point to areas of particularly heated or excited interchange in meeting recordings or areas of high importance in a speech. The implementation of the problem is done in MATLAB by sampling the speech signals and analyzing the emphasized frames.

Work Area : T.I.T&S, Bhiwani (Senior Year Project)

**(3) Project : Design of a Wireless communication system between desktop computers using Laser.**

Summary : The objective of this project was to design a circuit to wirelessly interconnect Desktop computers using a laser diode module. A circuit is designed that is connected to the COM-1 or 2 ports of each computer and the laser beam is focused on the photodiode of the other module and vice versa. The optical signals are converted to electrical signals by the photodiode, thus establishing a virtual null modem cable between them. A software using the 'C- Language' is developed and loaded into the computers and in the chat mode of operation data and files can be transferred as if a cable was connected.

Work Area : T.I.T&S, Bhiwani (Project Guide - Prof C.L Mittal, Head, Deptt. Of Electronics & Instr.)

**(4) Project : Caller Identification in Wireline Systems using Microcontroller .**

Summary : The objective of this project was to design the hardware and to develop the necessary software for decoding the caller identification information transmitted over the PSTN line. In order to decode the caller identification information, which is transmitted in the form of DTMF signals, a DTMF decoder (MT8870) is used. The decoded information is passed on to the Microcontroller (MC68HC705KJ1), which displays the incoming and outgoing numbers on the LCD screen.

Work Area : CEDTI , Mohali (Project done during the Summer Training at CEDTI)

**(5) Project : Measurement and control of Surrounding Temperature using Microcontroller.**

Summary : A sensor(LM317) is used to detect the surrounding temperature, the analog value thus obtained is converted by the Analog to Digital converter to the digital value and passed on to the Microcontroller (AT89C51) , when the temperature of the surroundings rises beyond a certain threshold a buzzer gets activated which acts as an alarm, also a LCD display is interfaced to constantly monitor the temperature.

Work Area : T.I.T&S, Bhiwani (Project Guide – Mrs Rachna Sardana, Asst. Prof , Dept. Of Elec. & Instr.)

**RELEVANT COURSE WORK**

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Digital Signal Processing, Optoelectronic Devices & Systems, Antenna Wave Propagation & Microwaves, Communication Engineering, Data Communication & Networking, Electromagnetic Theory, Digital Electronic Circuits, Problem Solving & Computer Programming(C Language), Object Oriented Programming(C++ Language).

**TECHNICAL PAPER PRESENTATION/ SEMINAR**

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- Presented seminars on 'GPRS' and 'Emerging Technologies in Mobile Communication' at Alcatel India Ltd.
- Presented a technical paper on 'Routing & Multicasting in MANET's' at 'MYSTICA-2003', an All India Technical Fest at TIT & S (Awarded, Best Technical Paper).
- Presented a technical paper on 'Wi – Fi (IEEE 802.11a,b,g)' in the college as part of the seventh semester course requirements.
- Presented a seminar on 'Wireless Networking & Its Feasibility in Defense Laboratories' at D.R.D.O, during Summer Training.
- Presented a Technical Paper on 'Bluetooth' at MYSTICA-2002 (T.I.T. & S, Bhiwani).

**AWARDS / EXTRA CURRICULAR ACTIVITIES**

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- Awarded scholarship for scoring more than 80% marks in AISSE, in June 1998.
- Awarded Grade 'A' by CEDTI for exceptional performance during summer training in July 2002.
- Certificate Of Excellence- Technical Society TIT & S, Dec 2002, for winning the intercollegiate debate competition
- A regular volunteer of National Service Scheme (NSS) and National Literacy Mission, a project of Govt. Of India.
- Organised 'MYSTICA-2003'an All India Inter Collegiate Technical Symposium.
- Organised 'Electro-Epitome 2003' an All India Technical Fest in the college.