RAJINDER TIWARI
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SUMMARY:

Well experienced in planning & establishing the Labs and Workshops for engineering students. Proven ability to impart knowledge & skills to the budding professionals of the century & to equip them to meet the challenges in their professional fields. Self motivated professional, able to build team cohesion and inspire individuals to strive towards ever higher levels of achievement.

ACADEMIC QUALIFICATIONS:

- Master of Technology in Instrumentation from NIT Kurukshetra, in 2002 with 77.6% (Ist Div with Distinction).
- Master of Science in Electronics from University of Jammu, Jammu (J&K), in 1998 with 71.2% (Ist Div).
- Bachelor of Science in Electronics from University of Jammu, Jammu (J&K), in 1995 with 73.5% (Ist Div).
- Intermediate (12th) from J&K Board, Jammu (J&K), in 1992 with 60**%** (Ist Div).
- High School (10th) from J&K Board, Jammu (J&K), in 1990 with 72.5**%** (Ist Div).

INTERNSHIP PROJECTS:

❖ M.Tech (I&C) Dissertation Project:

Central Electronics Engineering Research Institute (C.E.E.R.I), Pilani (Rajasthan) **Sep, 2001 – Mar 2002**

Dissertation Work: Data Mining for Biological Processes
Minor Project : Automatic Motor speed controller

Details – The minor project includes the design and fabrication of the circuit used for controlling the speed of the motor, e.g. Fan Speed, Air Cooler Speed, etc. Dissertation work includes the study of the various algorithms used for the data mining available in Data warehouses so as to derive the useful information. It also includes the modifications of the present technique used in moisture profile and improvement in the accuracy of the RH calculation in Withering process.
Tools Used – LabVIEW 6i, MatLAB 6.1

❖ M.Sc. (Electronics) Dissertation Project:

University of Jammu**, Jammu (J&K)** **Jan 1998 – Jun 1998**

Microprocessor Based Stabilizer using Stepper Motor (8085 Based),

Details – This project involves the design of an electronic gadget that can be used for the control of the Stepper Motor using the assembly language (8085). It involves the use of Stepper motor so that the movement of the stabilizer can be easily control in terms of small steps of the output voltage i.e. in discrete mode.
Tools Used – Interface with PC using RS 232, Assembly Language (8085).

PROFESSIONAL EXPERIENCES:

A. ACADEMICS EXPERIENCE:

- Currently, working as Astt. Prof in Department of Electronics Engineering, Amity School of Engineering, Amity University Uttar Pradesh, Lucknow Campus, AUUP **Aug, 2005 – Till Dated**

The following assignments have been taken up in addition to the delivering of lectures:

- ❖ Established Embedded Systems Design Lab
- ❖ Setup Electrical Science Lab, Analog Electronics Lab
- ❖ Setup Basic Electronics & Instrumentation Lab for B.Tech (Biotech) students

Subjects Taught:

- Basic Electronics& Instrumentation
- Electrical Science
- Analog Electronics
- Antenna & Wave Propagation
- Embedded Systems (Real Time Applications using Microcontroller & Microprocessors)

Area of Interests:

- Embedded Systems (Developing the Real Time Applications by using Assembly/Graphical Programming Tools)
- Sensors & Transducers
- Control System Design
- Process Industries
- Application Software Development

B. RESEARCH EXPERIENCE:

- **Project Assistant (Industrial Automation Process)**

Central Electronics Engineering Research Institute (C.E.E.R.I), Pilani (Rajasthan) July, 2002 – July 2005
Integrated Automation of Tea Manufacturing Processes (IATMP)

Details : The project involves the system software development and commissioning of the system at Model Tea Factory (MTF) at Tea Research Association (TRA), Jorhat, Assam. This MTF at Jorhat is first of its kind in India with the specially designed machines and hardware for the processing of the tea. It was an effort to bring the complete automation of tea manufacturing process on a single platform (i.e. Withering Process, CTC/Orthodox Process, Fermentation Process, Drying Process and Packaging & Sorting Process).

Tools Used: LabVIEW 6i, Advantech DAQ (32-bit), LabVIEW Tools (SQL, Fuzzy & PID), Oracle9i, MATLAB 6.1

Role : Worked as assistant team leader under the esteemed supervision of Dr. Pawan Kapur (Group Leader – Agri Electronics Group) that involves the development of the software and commissioning of the complete module of the Tea Withering process using Fuzzy based algorithms and other related control logics at MTF, Jorhat. Team Size: 15

Client : Tea Research Association (TRA), Kolkata (India)

Platform : Windows XP/2000

PC based Monitoring & Control system for Withering Process (MCWP)

Details : This system was first of its kind in India for PC based Monitoring & Control of Withering process in open trough system. This process involves the on-line monitoring of the trough parameters and adopts soft computing to calculate the percentage of withered leaves that further uses Fuzzy logic control for regulating air delivery system to the trough.
Tools : C language, Visual Basic 6.0, MatLAB 6.1
Role : Technical Member (TM), Peak Team Size – 5
Client : Tea Research Association, Kolkata (India)
Platform : Windows 9x/2000

Microcontroller based Intelligent Moisture Meter (IMM)

Details : This is a stand alone system that can be used at the remote fields for measuring the Microcontroller (Intel 80C196) based Intelligent Moisture meter has been developed for the measurement of moisture of tea leaves in terms of capacitance. Leaf weight & Leaf bed height were also measured to enhance the accuracy of the measurement.
Tools : C language, Keil Compiler, Intel's 80196KB Kit with other accessories, Origin 5.0
Role : Technical Member (TM), Peak Team size – 3
Client : Tea Research Association, Kolkata (India)
Platform : Windows 9x, MS DOS Environment

WORKSHOPS/SEMINARS/CONFERENCE ATTENDED:

- Attended a two day Workshop on "Nanotechnology in Semiconductor Industry" organized by Department of ECE, Madan Mohan Malviya Engineering College, Gorakhpur during 05 – 06, April, 2008.
- Contributed a paper entitled "Services at finger tips: Versatile Communicator" Rajinder Tiwari, Subhi Tiwari, Ankur Srivastava, Subhangee Nath as faculty guide in the "National Seminar cum Workshop and Exhibition on Communication 2020" organized by IETE Lucknow center and in association with Amity University, Lucknow Campus during 08 – 09 Mar, 2008.
- Attended a two day Workshop on "Practical Workshop on Embedded Systems based on 8051 Microcontroller" organized by Department of Electronics Engineering, Institute of Engineering and Technology, Sitapur road, Lucknow in association with Advanced Technology, Chandigarh during 28 – 29, Feb, 2008.
- Attended a National Seminar on "Communication Development and Strategies" organized by IETE Lucknow centre during Nov, 2007.
- Attended a National Seminar on "Broadband Wireless Communication Trends by 2020" organized by IETE Lucknow centre during Sep, 2007.
- Attended a National Seminar on "Future Trends in Communications" organized by Institute of Engineers (IE) in association with IETE Lucknow center during Dec, 2007.
- Attended a National Seminar on "Nano Materials and Nano Technology Development" organized by Department of Physics, Lucknow University during Nov, 2007.

EXTRACURRICULAR ACTIVITIES & ACHIEVEMENTS:

- 3rd rank in M.Tech (Instrumentation Engineering) degree course.
- 3rd rank in M.Sc (Electronics Science) degree course.
- GATE-99 qualified in E&C branch of Engineering conducted by IIT Mumbai
- Team member of the paper entitled "Intelligent Systems for Withering and Fermentation Stages of Tea Manufacturing Process" presented at ICON-2004 during 19-20 December, at Pune (Pune).
- Life Member of Institute of Electronics & Telecommunication Engineering (MIETE M 160505 L).
- Life Member of Materials Research Society of India (MRSI), Materials Research Centre (LM B 983).
- Regular attending member of the Workshops/Seminars on LabVIEW Software and its various aspects of the applications and use of its various software/hardware tool modules, conducted by National Instruments (NI), Bangalore (India), at New Delhi & Lucknow

TECHNICAL SKILLS & EXPOSURE:

- **Programming Languages:** LabVIEW 8.2/7Express, C/C++, Visual Basic 6.0, LabVIEW RT, Assembly Languages & Micro Controllers.
- **Industrial Grade Process Controllers:** Distributed Control System (DCS), Programmable Logic Controller (PLC), PID based Controllers & Neuro–Fuzzy Algorithms based Controllers, SCADA.
- **Operating System (OS):** WINDOWS 2000 / XP, WINDOWS 95/98, MS DOS 6.22, Linux (Basics).
- **Processors / Tools Knowledge:** Intel 8085/8086 Microprocessor including Pentium, Intel 8051(8-bit), 80C196KB (16-bit) Micro controller, LabVIEW RT.
- **Communication Protocols (LabVIEW/VB 6.0 Based):** Serial Comm. Protocols), USB Protocols, General purpose Interface Bus (GPIB), TCP/IP Protocols, DAQ, File I/O
- **Control & Simulation Tools:** MatLAB 6.1 (Simulink Module).
- **LabVIEW (NI) Tools:** FP-2000 series and its I/O Modules, IMAQ Vision Builder, Data Acquisition Cards (Advantech 32-bit PCL818HG/PCL813 & NI's 6024E), and the various tools of LabVIEW, TestStand, Report Generation Tool (DIAdem 8.2)
- **Database:** MS Excel, MS Access (Basics), Oracle 9i (SQL Plus feature), MS Project

PERSONAL INFORMATION:

Father's name:	Sh. R. S. Tiwari
Date of Birth:	28th August 1974
Marital Status:	Married
Nationality:	Indian
Permanent Address:	C/O Sh. U. S. Tiwari, Village: Buknapur, Post: Dubepur (Antu), District: Pratapgarh (U.P.)