



School of Electronics

University Teaching Department

(Estd: 1990)

Devi Ahilya University, Indore

Celebrating the completion of Twenty Years of Service to Nation with dedication



HEAD OF DEPARTMENT



Dr Rajkamal

Professor & Founder Head

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Prof. Rajkamal is a leading expert in the field of Computer Science & Electronics. He has authored 10 books. Some prominent books are

- **Mobile Computing** (Oxford University Press, 2007)
- **Embedded Systems 2 e** (McGraw-Hill, July 2008)
- **Microcontrollers Architecture 2nd edition** (Pearson Education, 2010)
- **Digital Principles and Design** (Pearson Education, 2007)
- **Computer Architecture 2e** (Schaum Series, 2010)

He has also served as Vice Chancellor, Devi Ahilya University in the year 2006 and 2009

Indore is the largest city in the state of Madhya Pradesh. It is known for its architectural splendor. Apart from being a historical city, Indore is also the commercial capital of the state of Madhya Pradesh and is a host to many industries, like automobile, textile, IT etc. With latest technological advancements, the city is about to become the IT hub of the state of MP. In addition, there are a number of educational institutes in Indore which are amongst the best in the country like IIT, IIM. City is well connected by Air, Train and Roads

About The City



About University



Devi Ahilya University is a State Government University of Madhya Pradesh established in 1964. The University is named after benevolent ruler of Malwa i.e. Devi Ahilya Bai Holkar. It is one of the most renowned universities of India. The university offers a number of varied courses and attracts a large number of students from all the corners of the nation and abroad.

School of Electronics (University Teaching Department) was established in 1990 with funding of Rs.1Crore from UGC and Department of Electronics (Now called Ministry of Information Technology), New Delhi. The School took the lead and started number of Innovative courses in the country namely three Full Time AICTE approved M.Tech Programs—M.Tech. (Embedded Systems, 2002), M.Tech (Spatial Information Technology, 2007) and (Mobile Computing Technology, 2008). The Department also offers doctoral program and also offers two M. Sc. Programs M.Sc. (Electronics, 1990) and M.Sc. (Electronics & Communication, 1993)

About School of Electronics



Mission

To promote technical education and research in the important and fast growing areas of Communication, Signal Processing, Networking, VLSI and Embedded Systems, GIS, Mobile Computing Technology

Vision

To create a Center of Excellence for imparting state-of-the-art education, training and research in the field of VLSI Design, Embedded Systems, Digital Signal Processing, Computer Networking, GIS data Processing at Postgraduate and Doctoral level. We are at imparting quality technical education of international standard and imbibe skills for solving real life problems.

Courses Offered

Ph.D. (Specialization: Mobile Computing, VLSI Design, Embedded System, Digital Signal Processing)

M. Tech. (Embedded Systems) (2 Years Course) **AICTE Approved**

Specialization: Embedded Systems, VLSI Design, Microcontrollers

M. Tech. (Spatial Information Technology) (2 Years Course) **AICTE Approved**

Specialization: GIS, GPS, Remote Sensing, Image Processing

M. Tech. (Mobile Computing Technology) (2 Years Course) **Approved by AICTE & UGC under Innovative Program Scheme 2008** Specialization: Mobile Computing, Wireless Communication

M. Sc. (Electronics) (2 Years Course)

Specialization: Microcontrollers, VLSI Design & Embedded Systems.

M. Sc. (Electronics & Communication) (2 Years Course)

Specialization: Computer Networks, Wireless & Mobile Communication.

Faculty

- **Dr. Rajkamal**, Professor & Head (Ph. D, IIT Delhi)
- **Dr. Sumant Katiyal**, Professor (Ph.D, M.E.)
- **Dr. Abhay Kumar**, Professor (Ph.D, M.Tech(IIT Delhi))
- **Ms. Pratibha Umale**, Lecturer (M.E., B.E.)
- **Ms. Kirti Panwar**, Lecturer (Pursuing M.Tech, B.E.)
- **Dr. Manju K. Chattopadhyay**, Lecturer (Ph.D, M.Sc)
- **Mr. Devendra S. Bais**, Lecturer (M.Tech, M.Sc)
- **Ms. Pallavi Yarde**, Lecturer (M.Tech, M.Sc)
- **Ms. Amrita Tiwari**, Lecturer (M.Tech, M.Sc)
- **Ms. Parul Jain**, Lecturer (M.Tech, B.E.)
- **Ms. Anjana Minj**, Lecturer (M.Sc)

Visiting faculty : Many leading experts from industry, academics are invited for delivering expert lectures.

MOU's

For research and development the department has signed MOU with following National Research Organization

- **CEERI Pilani**
- **IIT Pune**
- **RRCAT, Indore**

Inter-Disciplinary Approach

The department coordinates with School of Computer Science and Information Technology for teaching many inter-disciplinary topics in the area of Mobile Computing, Embedded Systems, Computer Architecture.

Infrastructure

- Fully Wi-Fi Building
- Full power back up in all classrooms and laboratories
- Multimedia/DLP in every classroom/Lab
- In-House sports facility for Badminton and Table Tennis

Library Facility

- 11,000+ Books
- Library Area: 150 Sq. m
- Online Subscription: IEEEExplore, ACM
- Book bank facility : 4 books issued to each student for entire semester.
- Alumni Association Books: 250
- Large number of online journals

Facilities

Best VLSI laboratory in Central India. Laboratories are....

VLSI & Embedded Systems Laboratory

- ARM Development Kit : ARM 7TDMI Development Board along with IDE, Linux based ARM development kits. ARM Keil IDE and Compatible Hardware for Embedded Development, LCD /Touch screen GUI Development Systems
- Xilinx : Spartan 3E, Virtex 2 Pro FPGA Development kit, CPLD Trainer kit, Accel DSP Application Software, System Generator(US-SYSGEN-4SL-PC), ISE, VLSI design software package (Xilinx Front End) simulation software for VHDL
- 8051 IDE Keil with RTOS C Compiler
- DSP Starter kit (Texas Instruments, U.S.A.)
- Digital Storage Oscilloscope (Tektronics Make)
- Tanner Tool Pro-Complete VLSI Design System
- Mentor Graphics HEP Category 1-IC nanometer design
- Mentor Graphics HEP Category 2 design, verification & test Board)
- Programmable / Arbitrary Function Generator (Tektronics Make) 10MHz to 20MHz



Spatial Information Technology Laboratory



- ESRI ArcGIS 9.3
- GPS Handheld receiver
- GPS Bluetooth Data Logger
- GPS Vehicle Tracker
- GPS Trainer Kit
- MATLAB and toolboxes.
- LabView 7.0 with Data Acquisition Card
- LPS GEOMATICA ENVI version 10.1 & 10.2

Mobile Computing Technology Laboratory

- RFID Trainer Kit
- CDMA Trainer Kit
- RFID Reader and Development Kit
- Mobile Exchange Trainer Kit
- QAM Trainer Kit
- ARM Development Kit (ARM Target with Windows CE Ported LPC 3250 Kit, Segger emWIN product which offers GUI Development Touch screen display for Mobile application development)



Microcontroller and Microprocessor Laboratory

- 8085 and 8086 kits
- EPROM programmer/Universal Programmer
- 8031/8051 Microcontroller Trainer Kit
- “LAB TOOL”- 48 Universal Programmer
- SBC-196 kits based on 80c 196 microcontrollers
- Microprocessor interfaces as 8253 demo, key board crystal clock,
- ADS and DAC for temperature sensing real time clock.
- 8051,68HC11,80c196 Emulator System of NOHAU Corp.
- USA IAR Systems Sweden make Embedded Workbenches for Intel 8051,Motorola 68HC11,Intel x96 microcontrollers



Communication Engineering Laboratory



- GSM Kit
- FSK, ASK & PSK Transmitter/Receiver
- PCM Modulation and Demodulation Kit
- Storage CRO 50 MHz Scientific make color CCD camera
- Practical Demonstration Boards for AM, FM modulation and demodulation

Analog and Digital Electronics Laboratory

- Cathode Ray Oscilloscopes
- Function Generators
- Frequency counter
- Digital Multimeters
- LCR meters.
- Digital IC testers
- Practical Demonstration Boards



Students Achievements

- **AICTE Scholarship**@ Rs.8000/- awarded to GATE qualified students of M.Tech courses.
- **GATE Selection (MSc's):** 03(2009), 03(2008), 12(2007)
- **NET Selection (MSc's):** 01(2005), 01(2009)
- SAGE Gold Medal for M.Sc(Electronics) topper set-up by Mr. Salil Sharma(Batch: 1991-93)
- **Merit Scholarship:** 02 Scholarship awarded per semester on the Merit, to M.Sc Electronics students @ Rs. 2000 per semester.
- **Merit-cum-Means Scholarship:** 02 Scholarship awarded per semester on the Merit-cum-Means basis to M.Sc Electronics students @ Rs. 2000 per semester.

Placement

- Centralized placement system in the university
- 20-25 MNC's visit the University for campus recruitment drive.
- Our students placement is nearly 100%
- Alumni of School are placed in reputed International and National MNC's: Intel, Cisco, Samsung, ST Microelectronics, CSC, Wipro, Texas Instrument, TCS, HCL, Tata Comm, Microsoft India, Tata Elxsi, GE, Hughes, Infosys, BSNL, Philips, Patani Computers, ISRO etc.
- Project training (1 year) of M.Tech students in reputed organization viz. Tata Technologies, CG Global, ISRO, DRDO, NRSA, HARSAC

Events

Celebrations for Completion of Twenty Years of Service to Nation with dedication

- 1st Alumni Meet organized on 09th Jan, 2010, which enabled students to interact with their seniors. Alumni from abroad also came to attend the meet.
- 1st National Conference on “*Emerging Electronic and Computing Systems*” (29th March – 03rd April, 2010) : Four days Tutorial from eminent speakers and Two days conference.

Programme Details

M.Sc Programme

S. N.	Programme	Duration	Intake	Eligibility	Fee (Annual) *
1	M.Sc. (Electronics)	2 Years (4 Sem)	40	B. C. A. or B. Sc. or B. Sc. (Hons.) with minimum 50% aggregate (with Math and one subject Computer Science/ Electronics/ Physics/Computer maintenance/	Rs.25,000/- + Rs. 3,000/- (Caution Money)
2	M.Sc. (Electronics & Comm.)	2 Years (4 Sem)	40	Electronics(Equipment Maintenance) For SC/ST/OBC minimum 40% marks in aggregate.	Rs.25,000/- + Rs. 3,000/- (Caution Money)

M.Tech Programme

S.N	Programme	Duration	Intake	Eligibility	Fee (Annual)
1	M.Tech. (Embedded System)	2 Years (4 Sem)	13+5**	GATE qualified in ECE or CSE, with B.E. /B. Tech. / M.Sc. in Electronics / Electronics & Communication/CS/IT/MCA with minimum 55% marks in aggregate.	(General) Rs.30,000/- + Rs. 3,000 /- (Caution Money) (Sponsored) Rs. 40,000/- + Rs. 3,000/- (Caution Money)
2	M.Tech. (Spatial Information Technology)	2 Years (4 Sem)	13+5**	GATE qualified with BE/B.Tech (Elex/Comp./Inst./IT/Civil) OR M.Sc..(Elex./Elex & Comm./ Comp.Sc./IT) OR MCA with minimum 55% marks in aggregate.	(General) Rs.30,000/- + Rs. 3,000 /- (Caution Money) (Sponsored) Rs. 40,000/- + Rs. 3,000/- (Caution Money)
3	M.Tech. (Mobile Computing Technology)	2 Years (4 Sem)	20+5**	BE/BTech(Elex & Comm./ Elex & Inst./Comp. Sc./Comp. Engg./IT) OR MSc (Elex/Elex & Comm/Comp. Sc./IT) OR MCA OR equivalent with min. 55% marks in Aggregate with valid GATE score in relevant discipline.	(General) Rs. 25,000/- + Rs. 3,000/- (Caution Money) (Sponsored) Rs. 40,000/- + Rs. 3,000/- (Caution Money)

* Fee (Annual): Subject to changes ** Sponsored Seat

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