

BRIEF PROFILE

	<p>Dr. Deepak S.Kumbhar</p> <p>Head, Department of BCA (Science)</p> <p>Modern College of Science, Commerce and Arts, Ganeshkhind, Pune-16 (MH) India</p>
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Education-

M.Sc. Electronic Science
(Pune University in 1998),
UGC - NET (Electronic Science),
Qualified in June 2013,
Ph.D. in Electronic Science,
(BAMU, Aurangabad in 2022),
CCNA Certification passed in 2008,
Diploma in VLSI Design
(Helios Technologies, Pune in 2001)

Teaching Experience:

Assistant Professor: UG Dept. of BCA(Science), Modern College
Ganeshkhind, **Pune (MS) INDIA**
July 2019 till date

Assistant Professor: UG Dept. of Electronics, Modern College
Ganeshkhind, **Pune (MS) INDIA**
7th Dec 1998 to July 2019

Contribution on Statutory Bodies :

Chairman, Board Studies in BCA(Science), Modern College,
Ganeshkhind, Pune-16

Member, Academic Council, Modern College, Ganeshkhind, Pune-16

Courses Taught to UG and PG classes –

B.C.A (Science) ,M.C.A.- I,B.Sc (CS)
B.Sc (Elec.), B.Sc (Vocational) B.C.S

Topics of interest in Teaching/Research-

- Teaching-Analog Electronics, Advance Digital Electronics, Micro-controllers, MicroProcessor and different electronic systems.
- Simulation tools- Pspice, Matlab, Express PCB, Xilinx ISE, Keil uVision, Programmersoft, NASM, C-for 8051, MPLAB & AVR studio etc.
- Research- Embedded System, WSN System

Research Paper Presentation in conferences/seminars-

- Presented a poster on “*Development of Wireless Sensor Network for Monitoring and Analysis of Concrete Compressive Strength Development in Early Age Concrete Structure*” in Dec. 30th 2015 at an International Conference on Functional Material and Microwaves (ICFMM-2015) held at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S), India organized by Department of Physics
- Presented a research paper in Feb. 5th, 2010 in a National seminar held at Modern College, Ganeshkhind Pune-53, on “*Development and Use of Multi-Module 8051 Micro- Controller Board for Teaching And Learning Micro-Controller Programming*”

Research Papers published in Peer-Reviewed Journals-

- D.S. Kumbhar, H. C. Chaudhari, (2015), “Development of Wireless Sensor Network for Monitoring and Analysis of Concrete Compressive Strength Development in Early Age Concrete Structure”, BIONANO FRONTIER, Vol. 8(3). pp.118-12
- D.S. Kumbhar, F.H. Kurne Inamdar, H. C. Chaudhari, (2018), “Development of Wireless Electronic Voting Machine as an Effective Enhancement of Voting System Security”, International Journal on Future Revolution in Computer Science & Communication Engineering, Vol. 4, Issue 3, pp. 109-112.
- M. V. Kukade, N. M. Kulkarni, D. S. Kumbhar , D.C. Gharpure, (2018), “Identification of spices by Electronic Nose using pattern recognition technique” , International Journal on Future Revolution in Computer Science & Communication Engineering, Vol 4, Issue 3, pp. 243-250.
- R. D. Gaikwad, D. S. Kumbhar, K. M. Kodam, P. R. Thakur, (2018), “Development of Portable Optical Sensor Based System for Detection of Phosphate in Wastewater” , International Journal of Chemical and Physical Sciences, IJCPS Vol. 7, Special Issue 12, pp.470-475.
- Deepak. S. Kumbhar, H. C. Chaudhari, Shubhangi M. Taur, Shubhangi S. Bhatambrekar,(2019), “ IoT Based Home Security System Using Raspberry Pi-3”, International Journal of Research and Analytical Reviews (IJRAR), Volume 6, Issue 1, pp. 305-309
- Deepak S. Kumbhar, Harish C. Chaudhari, (2019), “Comparative Analysis of Temperature Sensors and Selection of Temperature Sensor for Concrete Temperature Monitoring to Study Concrete Maturity in Civil Structure”, Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 5, pp 163-170.
- D.S. Kumbhar, H. C. Chaudhari, (2020), “A Survey on Wired and Wireless Sensor Network Techniques for the Monitoring of Concrete Compressive Strength at Early Age of Concrete Structure”, OUR HERITAGE Journal, Vol-68, Special Issue-38, pp.1-7.

Research papers/article/code on www.researchgate.net and academia.edu-

- Code: Thumb Wheel and 7-segment Display interface with 8051 Micro-controller
- Code: Stepper Motor Interfacing with 8051 Microcontroller
- Code: LCD Interfacing with 8051 microcontroller
- Experiment: XBee Communication
- Serial communication using RS 232 and ZigBee
- Conference Paper: Development of Wireless Sensor Network for Monitoring and Analysis of Concrete Compressive Strength Development in Early Age Concrete Structure
- Conference Paper: Development and Use of Multi-module 8051 Micro-controller Board for Teaching and Learning Micro-controller Programming.

Designing and development of social and commercial project-

- Spin Coater Time and RPM Setting Embedded System: Dr.Dole Sir, Department of Phy.BAMU, Aurangabad
- Solar Charge Controller Unit: Bipin Solar System
- Pratapgad War Model –using LED’s effect: Resort Marathi Tadka.
- 4.Docomo Ad Board: IN & OUT Co-operation.
- Differential Temperature Analysis system: Dr. Krushid Sir, Abeda Inamdar College
- 6.Designing and development of Analog, Digital and Micro-controller based training Electronics kits for nearly 86 educational institutes.: Future Chip Technologies Firm, Pune

Extension Activity-

- Conducted Hands On program on “PV Solar System Designing and Practical Implementation” for college students, Year 2016.
- Organizing Science Exhibition as a Chairman, Science Association Modern College, Year 2011-12
- Assistance Co-ordinate of Add on Course “Embedded C and Robotics” Year 2011-124.Project Guidance for Science and Engineering students
- Guidance for “Avishkar” Projects
- Technical Discussion and Guidance to Electronics /Computer Science teachers and staff on 8051, Arduino, Raspberry Pi prototype Kits and programming Tools.
- Technical Assistant to student activity and training programing in pune region colleges.

Workshops and seminars attended-

- 1 Participated in two day Faculty Development Program on “*Raspberry Pi Concepts and Programming*” Pantech ProEd Pvt Ltd. organized by D.Y.Patil College of Engineering, Akurdi
- 2. Participated in one day workshop on “*Implementation of revised syllabus in Electronics F.Y.B.Sc. (computer science/Electronics)*” organized by Abasaheb Garware College, Pune
- 3. Participated in one day workshop on “*Revision of T.Y.B.Sc. Electronic Science Syllabus Paper-II- Micro-controllers*”, organized by Tuljaram Chaturchand College, Baramati
- 4. Participated in State level workshop on “*ARM based Embedded System Development*”, organized by Shankarrao Mohite Mahavidyalaya, Akhuj
- Participated in one day workshop on “*Digital Signal Processing*”, organized by Mamasahab Mohol college Paud Road, Pune 38
- Participated in one day workshop on “*Implementation of revised syllabus in Electronics F.Y.B.Sc. (compute science)*”, organized by

Indira College, Wakad

- Participated in a one day workshop on “Revision of syllabus in Electronics for S.Y.B.Sc. (computer science)”, organized by H.P.T Arts and R.Y.K. Science College, Nasik 8. Participated in one day workshop on “Upgradation of B.Sc. (Computer Science) Syllabus in Electronics”, organized by Dr.D. Y. Patil Arts, Commerce and Science College, Pune -18 9. Participated in “*Entrepreneurship Development Programme Based on Solar Energy*”, organized by MITCON, Pune -5
- Participated in “*Faculty Development Program*” Organized by ICFAI University, Modern College, Ganeshkhind, Pune-53

Workshops Conducted-

- Faculty Development Program on “ARM Application Programming” organized by Fergusson College, Electronics Department, Pune
- Hands-on workshop on “Basic Electronics” organized by G.M.Momin Women`s College, Dept. of Physics, Bhiwandi
- Hands-on workshop on “Robotics Programming using 8051” organized by Fergusson College, Electronics Department, Pune
- Hands On workshop on “PV Solar System Designing and practically implementation” organized by Modern College, Ganeshkhind Pune-16

Invited Talks-

- “Arduino Programming” organized by B.R.Gholap College, New Sagavi
- “8051 Microcontroller Programming in C” organized by Anasaheb Awate College, Manchar, Pune
- “Microprocessor based electronic kits & NASM Programming” organized by Vishwakarma College, Kondhwa(BK), Pune
- “8051 microcontroller & Embedded system” organized by Indira College, Wakad
- “NASM Programming & Embedded system design flow” organized by Hutatma Rajguru College, Rajgurunager,
- “NASM Programming” organized by Hutatma Rajguru College, Rajgurunager, Pune
- “Computer Architecture” organized by P.V. G’s College of Science, Pune-9

List of Patents:

1. Central, Solar powered, Wireless, Handy and Mobile RFID I-card based Student Class Attendance and Management System (WHM-RSAMS) (**Patent Number 202221008803**) **Date of Publication: 19/02/2022**
2. In-situ IoT Cloud Based Concrete Maturity-Strength Measurement Systems for Real Time Concrete strength Monitoring and Prediction (**Patent Number 202221016227**) **Date of Publication: 23/03/2022**