

DR. RAMEEZ RAJA CHOWDHARY

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RESEARCH INTEREST

My research is in the area of Robotics, with current interest in Network robots, Orchestration of robotic system, Robot navigation, and Internet of robotics things. My past work has contributed to data acquisition system, wireless controlled devices (automation using low power devices) and system and Real time system (limited task system with small processor).

PROFILE

- 1 Ph.D. in Electronics and Telecommunication Engineering.
- 2 Sincere and highly organized individual completed M.Tech. Embedded Systems Technology in 2010 along with the additional qualification of M.Sc.(Elex. & Comm.) in 2006.
- 3 Strong problem solving & analytical skills with the flexibility to work cohesively as part of a multidisciplinary team, complimenting the skills of others.
- 4 Actively involved in academic Setup of the Islamia Karima College and School of Electronics in matters of Teaching, Research and Laboratory work.

EXPERIENCE: Total 10 years and Ten months.

- 1 Worked as a **Visiting Faculty at, I.K.D.C, Indore** to teach B.Sc. (Electronic) from July 2006 to June 2007.
- 2 Worked as a **Lecturer at, I.K.D.C, Indore** to teach B.Sc. (Electronic) from June 2007 to July 2008.
- 3 Worked as a Project Intern at **Spiro Solutions**, Chennai from August 2009 to March 2010.
- 4 Currently Working as a **Lecturer at School of Electronics**, from 01st Sept.2010 onwards.

CURRENT STATUS

- 1 Currently working as a **Lecturer, at School of Electronics DAVV**, Indore with additional responsibilities as **Training and placement Officer**
- 2 Teaching Theory and Laboratory papers to M.Sc. Electronics & M.Sc. Electronics & Communication and taking Classes as well as laboratory of M.Tech (Embedded Systems and Mobile Computing Technology) students at School of Electronics DAVV, Indore
- 3 Managing Sports Activities in the Department.
- 4 One of the members of **Anti Raging Committee**.
- 5 Incharge for organizing Seminars, Expert Lecture and Work shop.

6 Working as an Assistant Exam. Superintendent.

EDUCATIONAL & PROFESSIONAL DEVELOPMENT

PhD. in Electronics and Telecommunication Engineering.

Research Center: Institute of Engineering and Technology,
Devi Ahilya University, Indore.

M.Tech. Embedded Systems Technology 2008 – 2010

SRM University, Chennai
CGPA 8.34 on scale of 10

M.SC. (ELECTRONICS & COMMUNICATION) , 2004 – 2006

School of Electronics, DAVV, Indore with 84.40%

B.SC. (ELECTRONICS), 2001- 2004

Govt. Holkar Science College, DAVV, Indore (M.P.) With 56.22%

S.S.C., 1999-2000

Govt. Shubash Higher Secondary School, Bhanpura (M.P.). With 67.55%

Secondary School, 1997 – 1998

Govt. Shubash Higher Secondary School, Bhanpura (M.P.). With 60%

TECHNICAL SKILLS

Languages	C/C++, Embedded C.
Operating System	Windows.
Tools	Keil, AVR Studio, Arduino, Proteus.
Concepts	Real Time Operating Systems, Microprocessor/ Microcontroller Architecture and Organization, Computer Fundamentals, Digital Design, Robotics.

RESEARCH PROJECT COMPLETED:

Faculty:	Faculty of Engineering Science, Devi Ahilya University, Indore.
Scheme:	Seed Money for Research.
Title of the Project:	Orchestrator Control Robotic Relay Racing and Collision Avoidance Method towards a Common Goal.

ACADEMIC PROJECTS (DURING M.TECH/ M.SC.)

- **Data Acquisition System Based on CAN & ARM (M.Tech. Major Project)**

Team size: 1

Duration: 1 Year.

Brief Synopsis: The goal of project is to collect the information from different sensor in real time & display this information on LCD by using CAN bus.

- **MP3 Player & Game for Mobile (M.Sc. Major Project)**

Team Size: 3

Duration: 6 months

Brief Synopsis: The goal of project is to play a MP3 & .WAV audio file in mobile and a JAVA Game for mobile.

- **K-Map Solution (M.Sc. Minor Project)**

Team Size: 3

Duration: 2 months

Brief Synopsis: It is the program to find the solution for SOP equation in Digital design and Showing the graphical K-Map for it.

- **Thief Alarm based on Infrared Tx. and 89C51 MC (M. Sc (Project Making Completion))**

Team Size: 2

Duration: 1 month

Brief Synopsis: The goal of project is to detect the thief whenever it enters in home.

- **Fire Alarm (B. Sc Major Project)**

Team Size: 1

Duration: 6 months

Brief Synopsis: The goal of project is to sound the Alarm when fire detect in installed location.

PAPER PUBLISHED - PRESENTED

JOURNAL PAPER

1. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'Orchestration of Robotic Platform and Implementation of Adaptive Self-Learning Neuro-Fuzzy Controller', *Journal of Electronic Design Technology*. 2017; vol. 8, no. 3, pp.17–29.
2. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'Comparative study of Orchestrated, Centralised and Decentralised Approaches for Orchestrator based Task Allocation and Collision Avoidance using Network Controlled Robots', *Accepted in Journal of KSU computer and Information Science (Elsevier)*.
3. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'IoT model based battery temperature and health monitoring system using electric vehicle like mobile robot', *Accepted in Journal of Advancement in Robotics*.
4. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'Orchestrator Controlled Navigation of Automated Guided Mobile Robots in a warehouse like Environment', *Communicated*.
5. Sunhare P., Chowdhary R.R and Chattopadhyay M.K., "Internet of Things and Data Mining: An Applications Oriented Survey." *Communicated*.

INTERNATIONAL CONFERENCE

1. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'Study of an Orchestrator for Centralized and Distributed Networked Robotic Systems, in: Proc. of the Intl. Conference on Information Engineering', Management and Security, 2015, pp.139-143
2. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'IoT based State of Charge and temperature monitoring system for mobile robots, in *International Conference on Innovation in Electronics and Communication Engineering, GNI, Hyderabad, 2-3 August, 2019.*
3. Chowdhary, R.R. Chattopadhyay, M.K. and Rajkamal, 'Orchestrator Controlled Navigation of Mobile Robots in a Static Environment, in *International Conference on Innovation in Electronics and Communication Engineering, GNI, Hyderabad, 2-3 August, 2019.*
4. Goutam P., Chowdhary, R.R. and Chattopadhyay, M.K., 'Implementation of Digital Filters Using ARM Microcontroller STM32F401RE, in *International Conference on Innovation in Electronics and Communication Engineering, GNI, Hyderabad, 2-3 August, 2019.*

NATIONAL CONFERENCE

1. Chowdhary, R.R., "Data Acquisition System Based on CAN & ARM", IIIT 2010, Erode Senganthur Engineering College, Anna University, Erode.
2. Chowdhary, R.R., "Data Acquisition System Based on RTOS & ARM" NCEECS 2010, School of Electronics., DAVV, Indore.

SUBJECTS TAUGHT

(M.TECH. MOBILE COMMUNICATION TECHNOLOGY/ M.TECH. EMBEDDED SYSTEMS)

- Wireless Communication & Networks Protocol, Embedded Microcontroller Real Time Systems and ARM & Its Interfacing.

(M.SC. ELECTRONICS / M.SC. ELECTRONICS & COMMUNICATION)

- Wireless Communication, Analog & Digital Communication, Analog Interface Electronics, Computer Networks, Microprocessor & Interfacing and Network Theory.

(B.SC. ELECTRONIC)

- Analog Electronic, Microprocessor and Interfacing and Digital Design.

STUDENT'S PROJECT GUIDED:

Project Guided to M. Sc., and M. Tech. students.

S. No.	Title of Major Project	Name of Students
1	Obstacle Detector for blind person	Mr. Kapil Kushwaha
2	Digital Altimeter	Mr. Kirtesh
3	Voice Controlled Mobile Robotic Arm.	Mr. Bratin & Mr. Chandrahas
4	RF Controlled Robotic Vehicle using	Mr. Avinash

	Microcontroller AT89C51.	
5	Cell Phone Operated Land rover using 8051 Microcontroller.	Ms. Nupur & Ms. Prachi
6	RF based Home Automation using 89C51 Microcontroller.	Mr. Madhav
7	Bluetooth Controlled Robot.	Mr. Abhay, Ms. Krishna & Ms. Chayya
8	Fuzzy Logic based Obstacle Detection and Avoidance Robot.	Ms. Akansha, Ms. Jayshree & Ms. Nidhi
9	Automatic Vehicle Accident Detection and Location Identification System using ARM, GPS and GPRS.	Mr. Rahul Kumar
10	Arduino based Quad Copter	Mr. Amit, Mr. Praveen & Mr. Vikas
11	Monitor Robot with Wi-Fi enabled Smart Robot	Ms. Apeksha, Mr. Naveen & Mr. Sanjeev
12	Underground Unmanned Coal mine Robot	Mr. Ankit & Ms. Radhika
13	IoT based Smart Irrigation and Tank Monitoring System	Mr. Sagar and Mr. Ashish Pal
14	Bluetooth based Home Automation System	Mr. Nitin Dubey and Ms. Purnima

LABORATORY WORK:

I am instrumental in setting up many new experiments/small projects for B.Sc. Electronic, M.Sc. Electronics/ Electronics and Communication and M.Tech. (Embedded Systems / Mobile Computing Technology) students as listed below

1. **Digital Design Laboratory, B.Sc & M.Sc.**
2. **Analog and Digital Communication Laboratory, B.Sc.**
3. **8051 MC Laboratory, M.Tech. (Embedded Systems)**
4. **ARM Processor Laboratory, M.Tech. (Embedded Systems & Mobile Computing Technology)**
5. **Real Time Systems Laboratory, M.Tech. (Embedded Systems)**

CONFERENCE/SHORT TERM TRAINING PROGRAMME/ WORKSHOP ORGANISED:

1. Delivered an expert lecture in workshop "Arduino Platform and Interfacing with I/O Devices", at Prestige Institute of Science and Engineering, Indore.
2. Co-Convener: Short Term Training Programme on Embedded System Programming (SESP-12), at School of Electronics, Indore. Date 24-26 Feb. 2012.

Organizing Committee Member:

1. Workshop on "Windows Phone 7 Application Development" at School of Electronics, Indore - Oct 15-16, 2010.
2. Workshop on "ANDROID APPLICATION DEVELOPMENT" at School of Electronics, Indore 15th October 2011.
3. National Workshop on Mobile System Programming at School of Electronics, Indore. Dated 10-12 Feb. 2012
4. Workshop on Mobile Computing (WMC- 2012)," at SCSIT, Indore, on 12th March 2012.
5. Workshop on "ARM Microcontroller Programming and Interfacing," at School of Electronics, Indore. 29 June-4 July 2015.
6. Short Term course on Analog IC Design - Circuit and Layout Design Methodologies using Cadence Design Flow, School of Electronics, DAVV, Indore. Date 08-12 Jan. 2019.
7. Summer Course through NKN on VLSI chip Design – Hands on using open source EDA, School of Electronics, DAVV, Indore. Date 08-12 July. 2019.

AWARDS, HONORS AND ACHIEVEMENTS:

- Reviewer:
 - Journal of Intelligent and Robotic System
 - Journal of Electronic Design Technology
- Participated and won second Prize in On the Spot Circuit Making Competition held in ZEAL at Devi Ahilya University in year 2005.
- Participated and won First Prize in Mr. Professional Competition held in ZEAL at Devi Ahilya University in year 2005.
- Participated in project Making Competition held in ZEAL at Devi Ahilya University in year 2006.
- Get the Certificate of Merit for securing more than 8.8 GPA in the academic year 2008.
- Organized ZEAL 05 as Secretary in Devi Ahilya University in year 2005.
- Organized Electronic Day as Secretary in Holkar Science College, Devi Ahilya University in year 2004.
- NCC 'A' Certificate.

PERSONAL INFORMATION:

Name	Rameez Raja Chowdhary
Father's Name	Mr. Shuja Farid Chowdhary
Mother's Name	Mrs. Tahira Chowdhary
Date of Birth	28 th June 1983.
Present address	Char Nal Road, 236- Azad Nagar, Indore- 452001, (M.P.)