

**Kathmandu
University**



My Current Work and Future Plans



Ram Kaji Budhathoki, Ph.D
Professor and Head
Department of Electrical and Electronics
Engineering
Kathmandu University

Date: 2 October, 2024

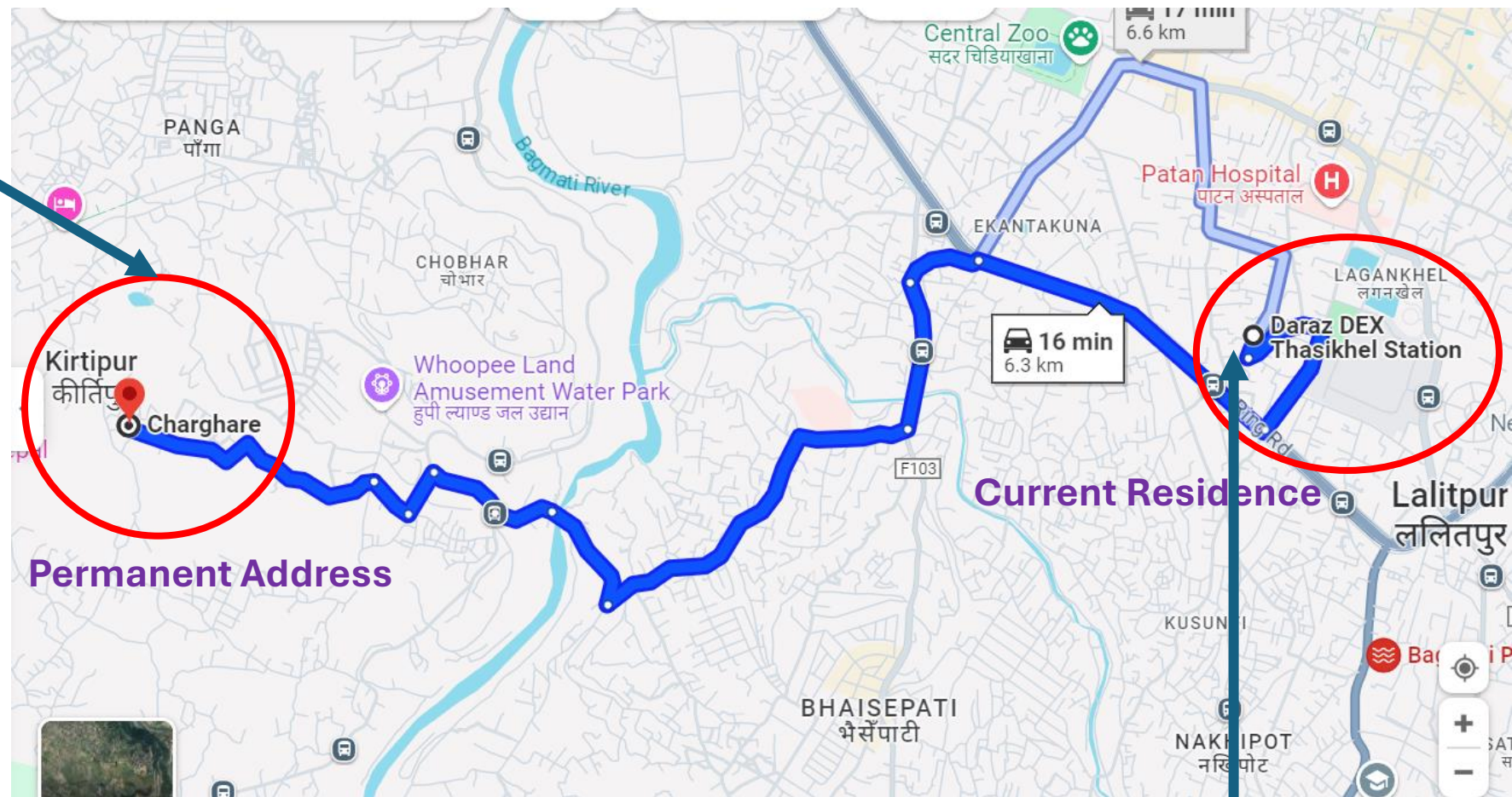


- **Brief Introduction**
- **Current Work**
- **Future Plans**

My Address



Permanent Address
Charghare
Kirtipur-6
Kathmandu



Current Residence
Thasikhel, Lalitpur-5
Lalitpur



My Father and Mother



My Wife, Daughter and Son

Education



Schooling



Kathmandu University

B.E.



M.E.



10+2



Ph.D.



- 2018- 2024 **Associate Professor**
Department of Electrical and Electronics
Engineering at Kathmandu University, Dhulikhel, Kavre, Nepal.
- 2002-2018 **Teaching Assistant - Associate Professor**
Department of Electronics and Communication Engineering
Nepal Engineering College, Changunarayan, Bhaktapur, Nepal.
- 2001-2002 **Lecturer**
Institute of Engineering
Western Region Campus, Pokhara, Nepal.

Experience



- 2022-2022
(Feb) (July) **Graduate Program Coordinator**
Department of Electrical and Electronics Engineering
Kathmandu University, Dhulikhel, Kavre, Nepal
- 2010-2011 **Head**, Department of Electrical and Electronics Engineering
Nepal Engineering College, Changunarayan, Bhaktapur, Nepal.
- 2010-2010 **Program Coordinator**, Electronics and Communication Engineering
Department of Electrical and Electronics Engineering
Nepal Engineering College, Changunarayan, Bhaktapur, Nepal.
- 2007-2009 **Chief, Project Division**
Department of Electrical and Electronics Engineering
Nepal Engineering College, Changunarayan, Bhaktapur, Nepal.
- 2006-2007 **Project Coordinator**
Department of Electrical and Electronics Engineering
Nepal Engineering College, Changunarayan, Bhaktapur, Nepal.



- **Co-Principal Investigator (Co-PI), Kathmandu University**, Bhutan + Nepal Higher Education for accomplishing the sustainable Development Goals (B+NESDG) Project, funded by the Erasmus+ programme of the European Union, 2020-2023
- **Principal Investigator (PI)**, Monitoring and Automation of Agricultural Field: IoT Concept in Practice, funded by University Grant Commission, Nepal, 2018-2022.



Conference Chair

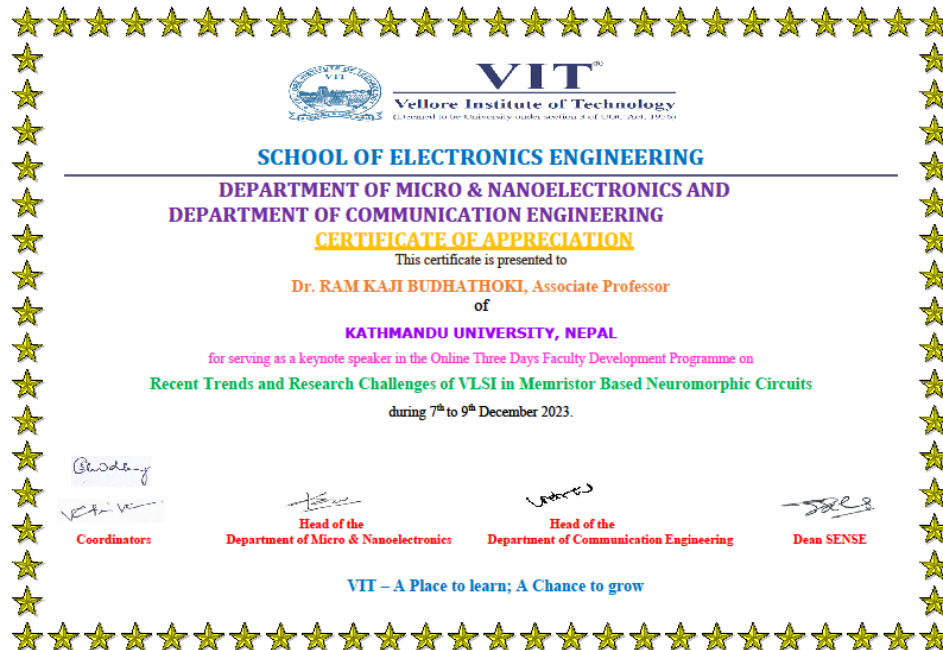
- Communications and Information Processing Nepal (CIPN), organized by Department of Electrical and Electronics Engineering at Kathmandu University, 6-7 April, 2023

Session Chair

- International Conference on Recent Innovations in Engineering and Technology-19 (**ICRIET-19**), TSSM's Bhivarabai Sawant College of Engineering and Research & Savitribai Phule Pune University, Pune, India, 15 - 16 February, 2019
- International Conference on Recent Innovations in Engineering and Technology-20 (**ICRIET-20**), TSSM's Bhivarabai Sawant College of Engineering and Research & Savitribai Phule Pune University, Pune, India, 30-31 January, 2020.



- Memristor Circuits for Neuromorphic Applications, Nalla Malla Reddy Engineering College, Tamilnadu, India, 20 Feb, 2021
- Neural Synaptic Weighting with Memristor Circuits, Vellore Institute of Technology (VIT), Hyderabad, India, 3 May, 2023



NALLA MALLA REDDY ENGINEERING COLLEGE

Autonomous Institution

Accredited by NAAC with 'A' Grade, NBA Accredited B. Tech Programs

Website: www.nmrec.edu.in



ECE Student Association, IETE Students Forum (ISF)

Presents

"Memristor Circuits for Neuromorphic Applications"

Speaker

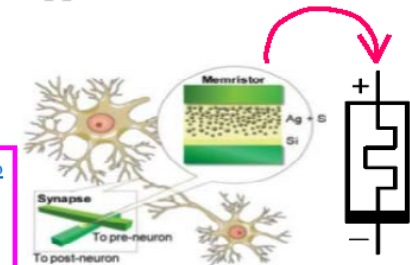


Dr. Ram Kaji Budhathoki,
Associate Professor, Department of EEE
School of Engineering, Kathmandu University
Dhulikhel, Kavre, Nepal

Feb 20th, 2021
at 10:30 AM

Join us at: <https://zoom.us/j/9103503584?pwd=R2VmVUUtKa3haYkVPb25ZSW5TK0hMOT09>

Meeting ID: 910 3510 3584
Passcode: 374224



Organized by

Department of Electronics and Communication Engineering



- 1 patent
- 16 peer-reviewed journal articles
- 32 conference papers
- 2 book chapters



- **Best Paper Award**, Deep Insights: Enhancing urban planning with Semantic Segmentation of Satellite Images, International Conference on “Emerging Research in Computing, Information, Communication, Artificial Intelligence and Machine learning (ERCICAM 2024), Bangalore, India, 23-24 Feb, 2024.
- **Best Paper Award**, A PTC Memristor based Oscillator, 10th International Conference on Advanced Engineering and ICT-Convergence (ICAEIC), Thailand, 2023.
- **Nepal Vidya Bhusan 'Ka' award** from the Honorable President of Nepal, 8 September, 2015.
- **Best Paper Award**, Action Potential Generation in Neural Circuits Based on Voltage Controlled Oscillator, International Symposium on Information Technology Convergence(ISITC), South Korea, 2014.
- **Outstanding Graduate Student Award**, September 2013 to February 2014, BK 21 PLUS HOPE IT Human Resource Development Center, Chonbuk National University, South Korea.
- **Recipient of BK 21(PLUS) Scholarship** during PhD in Chonbuk National University, South Korea, 2011- 2015.



- Memristor and Memristive Devices, Communication, Neural Networks, IoT
- Electronics in Agriculture



Head

Department of Electrical and Electronics Engineering
Kathmandu University

Thesis Supervision

- PhD Students - 2
- Master by Research - 1

Restructuring of course and syllabus

- B.E. Electrical and Electronics Engineering (Communication and Power & Control)



Ongoing Projects:

- **Principal Investigator (PI)**, Strategies for a Secure Operation of Net Zero Power Systems, Research Partnership Grants (RPG) with South Asia and Iran 2023, 2024-2025.(Ongoing)
- **Principal Investigator (PI)**, IoT based Humidifier for Indoor Farming, Internally Funded Project, Kathmandu University, 2023-2024. (Ongoing)
- **Member**, Establishing Teaching and Learning Centre of Excellence for Accessible, Inclusive, and Digitized Management Education in HEIs of India and Nepal to target SDG 4, 10 and 17 (AIDedu) Project, funded by the Erasmus+ programme of the European Union, 2023-2026.(Ongoing)



- Member of different committees at KU: Scholarship Committee, Admission Committee, Subject Committee, Research Committee and others.
- Editorial Member of several International Journals
- International Advisory Committee/Technical Program Committee of several International Conferences
- Subject Committee Member of IoE, E&C Engg., Pulchowk, MTU, FWU
- Curriculum Development Committee Member, MTU, FWU



- Greece, United States of America, South Korea, China, Thailand, Spain, Czech Republic, Austria, India



- Early days: Invention of the transistor (1947)
- Rise of integrated circuits (1960s)
- Growth of telecommunications and the internet (1990s)
- The mobile revolution and 4G (2000s)
- Transition to 5G networks (2020s)

Current Trends in ECE

- 5G and its impact on connectivity
- Internet of Things (IoT) and its applications
- Artificial Intelligence (AI) in communication systems
- VLSI (Very-Large-Scale Integration) design advancements
- Quantum computing in electronics



- To act as per the vision and mission of Kathmandu University
- To mentor students and faculty members in the department.
- To enhance the industry partnership and collaboration with the department.
- To carry out the research projects with societal value.
- To launch new courses by following the current trends in Electronics and Communication Engineering.
- To collaborate with other Universities for teaching, thesis supervision, joint degree, joint projects and research activities.



Thank You

For further information:

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Kathmandu University

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