KHEM NARAYAN POUDEL

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EDUCATION

2017-2020 PhD. (Expected,December 2019): PHD, Computational science , MTSU GPA 4.0/4.0
Specilaization:Computational Electromagnetics,Optics,Data Science, Machine learning, Comp. Network

May 2019 MS, Computer science, MTSU GPA 4.0/4.0
Specilaization:Data Science, Machine learning, Computer Network and Cyber Security

Fall 2016 MS Electrical and Computer Engineering , University of Utah.
Specilaization: Digital signal processing, RF/Antenna Electromagnetics.

June 2013 MSC in information and Communication Engineering ,TRIBHUWAN UNIVERSITY, NEPAL, GPA: 4.0/4.0

Specilaization:Wireless communication system,Neural Networks, Avionics.

March 2010 B.E, Electronics and Communication Engineering ,TRIBHUWAN UNIVERSITY, NEPAL, GPA: 4.0 (first rank)

Specilaization:Wireless communication system, Avionics,Computer science.

RELATED EXPERIENCE

Jan 2017 Research Assistant
-Current
-Work FLow Optimization of Cloud Computing for Big Data Applications.
- Computational modeling of maximum length sequence multilayer and grating structure
-Phonocardiography data compression using discrete wavelet transform :Machinelearning(TensorFlow).

Teaching Assistant: Instructor
- Astronomy Lab (ASTRO 1031),
- Computer science orientation,CSCI-1150(HTML,CSS,JS,Microsoft Excel, Word),
-Computer Language Java,CSCI 3033

August 2014 Research /Teaching Assistant, *Advanced antenna Lab, University of Utah*, and Salt Lake City,

-December 2016 - Investigate methods to design of Biological inspired Robot.

- Design of crime scene investigation system to investigate the wireless channel state information.

- Single plane Transceiver arrays for Massive MIMO Communication.
-Teaching lab for Introduction to Electromagnetics and Transmission line (ECE3300) and supervising student on Senior Thesis (ECE4900).

Dec 2006 System Engineer, *Tribhuwan International Airport, Kathmandu Nepal*
-Aug 2014 Designing, installing, monitoring, maintaining of
- Network system(Cisco Router, switch,firewall, and server) for Aeronautical Message Handling System.
-Telecommunication sytem(PABX Telephony system)
-Analyze the air traffic and meterological weather data using data visualization tools.
- Communication and navigation system(VHF, HF Radio transreceiver and antennas)
-Survelliance systems(Radar)

May 2010 Senior Lecturer,*Tribhuwan University,Kathmandu Engineering College,Nepal*
-Aug 2014 -Conducting research and lecture class for electromagnetics, communication system, signal processing , propagation and antenna system, C, C++, computer network.CCNA instructor.

TECHNICAL PROFICIENCIES

Data Science Tools R, Python, Tableu, MSSQL, Hadoop, Cloudera,Pig,Hive, Hbase, Git,HTML, Js, PHP, Java .
Deep Learning Packages Tensorflow,Keras,Maxnet,NLTK .
RF Electromangetics CST Microwave studio, HFSS, FDTD , Comsol Multiphysics, Cadence, Advanced Design System for simulating RF and Microwave system.
Computational Tools Matlab, Mathmatica,Maple 11,C, C++,Fortran,MPI, OPENMP, Cuda .
Networking Tools CCNA, Packet Tracer

HONORS & PROFESSIONAL SOCIETIES

-Reviewer
-ACM South East Conference 2018,
-IEEE APS/URSI 2019, Session chair
-The Second International Conference on Mechanical, Electric and Industrial Engineering (MEIE2019)

-Graduate student advisory council member at U of U ECE department,vice president: IEEE Utah student chapter (2016).
-Full Tuition Waiver: PHD/MS/B.E
-Travel Grant, Security Encryption Workshop, organized by Brown University,May 2019.
-President of Robotics club, Kathmandu Engineering College, Nepal(2009)
- Undergradute -Gold medal (1st Rank) student. 2010
-Academic coordinator, electronics and communication department Kathmandu Engineering College, Nepal.

Publications

1. **Khem N. Poudel**, Performance analysis of ATC radar using pulse compression techniques, KEC Journal of science and engineering,June 2013, Vol1.
2. **Khem N. Poudel,** David Schurig, Neal Patwari, "Spatial Imaging Using a Communication System's Channel State Information", IEEE APS/URSI 2016 Puerto Rico.
3. **Khem N. Poudel**, David Schurig, Neal Patwari, "Security Imaging Using Wifi based Channel State Information", Annual Conference | Utah Academy of Science Arts and Letters
4. **Khem N. Poudel** and Santosh Pokhrel FDTD: A Powerful Tool In Computational Electromagnetics, Annual Conference | Utah Academy of Science Arts and Letters.
5. **Khem N. Poudel**, William Robertson, "Metamaterial Inspired Antenna Design for Massive MIMO, 5G Communications System", IEEE APS/URSI 2017 Los Angeles.
6. **Khem N. Poudel,** Vijay Koju William Robertson, "Frequency Selective Surfaces for Microwave Frequency Band Applications", IEEE APS/URSI 2017 Los Angeles.
7. **Khem N. Poudel** and William M. Robertson, "Maximum length sequence dielectric multilayer reflector," OSA Continuum 1, 358-372 (2018)
8. **Khem N. Poudel**, Yi Gu, Time and Cost Optimization in Cloud Computing for Big Data Applications. ACM Mid SouthEast Conference, 2018.
9. **Khem N. Poudel** and William M. Robertson "Bloch surface wave excitation using a maximum length sequence grating structure", Proc. SPIE 10914, Optical Components and Materials XVI, 109140K (27 February 2019); doi:10.1117/12.2508184; https://doi.org/10.1117/12.2508184.
10. M. Chowdhury, **K. Poudel** and Y. Hu, "Phonocardiography Data Compression using Discrete Wavelet Transform," 2018 IEEE Signal Processing in Medicine and Biology Symposium (SPMB), Philadelphia, PA, 2018, pp. 01-03.doi: 10.1109/SPMB.2018.8615617.
10. **Khem N. Poudel,** William Robertson, "Characterization of Oils and Oil Mixtures using Terahertz Time-Domain Spectroscopy", IEEE APS/URSI 2019 Atlanta.
11. M. Chowdhury, **K. Poudel** and Y. Hu, "Automatic Phonocardiography Analysis using Discrete Wavelet Transform,"International Conference on Vision, Image and Signal Processing (ICVISP2019) Vancouver, Canada,August,26-28, 2019.