KAMAL LAMICHHANE

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EDUCATION

University of Waterloo, Waterloo, ON Canada *Sept 2015*
MASc in Electrical &Computer Engineering, Computer Software
Major in Embedded Systems & Software; Real-time Embedded Software Group.
Algorithm Design and Analysis, Design and Analysis of Experiment,and Computer Aided Verification

Nitte Meenakshi Institute of Technology, Bangalore, India *May 2015*
B.E. in Electronics &Communication Engineering
Major in Embedded System, Circuits & System
Overall GPA: 9.73, **Gold metal, Dept. of ECE**

St. Lawrence Higher Secondary School, Kathmandu, Nepal *Sept 2010*
HSEB (Class XI, Class XII)
Physics, Chemistry, Mathematics, Biology
Overall Percentage: 81.8 %, **Second Position** in College

Shree Pradyumna Paneru Higher Secondary School, Syangja, Nepal *July 2008*
SLC (Class X)
Science, Mathematics, Computer Science
Overall Percentage: 80.1 %, **First Position** in School, District Topper

WORK EXPERIENCE

Research Student at Center for Small Satellite Research, NMIT July 2014-June 2015
Command & Data Handling for Project STUDSAT-2 *Bangalore, India*

- Implemented Real Time operating system using FreeRTOS from FreeRTOS inc. Identified sixty four different Task for the proper operation of the satellite right from the ejection which helped in development of operational flow.
- Performed RTOS performance evaluation to evaluate the RTOS metrics and memory management for the STUDSAT-2.
- Developed Mission sequence for Project STUDSAT-2 right from ejection from PSLV till the end of life time of the satellite, considering all the specification of projects.

Technical: FreeRTOS, C, C++, Matlab Simulink.

Indian Institute of Science May-July 2014
Summer Research Fellowship Program-2014, Antenna Designing & Modelling *Bangalore, India*

- Designed and simulated four different wideband antennas for aircraft application.
- Designed Vivaldi antenna with operational frequency ranging 2-6 GHz with return loss less than -16 dB.

- Designed Spiral antenna, Sinuous antenna, and Multi-arm Spiral Antenna to obtain NULLs in full 360° with good return loss and gain.

Technical: CADFEKO, Matlab, HFSS, C.

Technophilia Systems, RCAI, CMU, USA June 2013
Advance Robotics *Bangalore, India*

- Successfully conducted hands-on experiments on interfacing of different peripherals and I/O devices (acceleration sensor, optical sensor, analog sound sensor, matrix LED display module, IR wireless communication module, relay board used in home and industrial automation systems).
- Developed Line follower Robot, DTMF controlled Robot, Wireless controlled Robot, Brain wave controlled & Home Automation System.

Technical: C, C++, ROBOT C, Cadence, Arduino

TECHNICAL STRENGTHS

Programming	C/C++, Python, Java, ALP, VHDL, and HTML5
Processing Platforms	x86, Arduino, MSP430, ARM Cortex M4, ARM A8, and Atmel.
Statistical tools	R, and SAS
Operating Systems	Unix, Linux, Embedded Linux, Windows
Tools	Tanner Tools,TINA,Eclipse,Xilinx ISE,Pspice,Keil,Modelsim,FEKO.

RELEVANT PUBLICATIONS

Actuation System Design and Payload Operation Flow for STUDSAT-2. IAC 2015
*Sandesh Hegde, Kannan T,***Kamal Lamichhane***, and Sandya S. In the Proceedings of the 66th International Astronautical Congress, Israel. October, 2015.*

Embedded RTOS Implementation for Twin Nano-Satellite STUDSAT-2 IEEE 2015
Kamal Lamichhane*, Kiran M, Kannan T, Sandya S; Embedded RTOS Implementation for Twin Nano-Satellite STUDSAT-2, 2nd IEEE International Conference on Metrology for Aerospace, 978-1-4799-7568-6/15//31.00 2015 IEEE June 4-5, 2015, Benevento, Italy.*

Operational Flow for Twin Nano-Satellite Mission IEEE Metrology June 2015
Kamal Lamichhane*, Kiran M, Kannan T, Sandya S; Operational Flow for Twin Nano-Satellite Mission, 2nd IEEE International Conference on Metrology for Aerospace, 978-1-4799-7568-6/15//31.00 2015 IEEE June 4-5, 2015, Benevento, Italy.*

Implementation and Comparative Study of Algorithms to Avoid Obstacles in Mobile Robot Navigation July 2014
Min Raj Nepali, Amar Mani Aryal, Ashutosh and **Kamal Lamichhane***. Implementation and Comparative Study of Algorithms to Avoid Obstacles in Mobile Robot Navigation. International Journal of Computer Applications 97(11):13-18, July 2014.*

Early Breast Cancer Detection Using Statistical Parameters March 2014
H.C.Nagaraj, Prasanna Paga **Kamal Lamichhane***. Early Breast Cancer Detection Using Statistical Parameters. IMPACT: International Journal of Research in Engineering Technology (IMPACT: IJRET) ISSN(E): 2321-8843; ISSN(P): 2347-4599 Vol. 2, Issue 3, Mar 2014, 31-36.*

Microcontroller-Based Remote Locator ELSEVIER August 2014
Kamal Lamichhane*, Ashwin Chapte, M. Kiran and Avanee Bhat, Aug 2014, Microcontroller-Based Remote Locator, ERCICA 2014 - Emerging Research In Computing, Information, Communication And Applications. ISBN: 9789351072638 ELSEVIER India.*

Intelligent Wireless Video Monitoring System Using Computer IRAJ July 2014
Kamal Lamichhane, *Kiran .M, Avanee Bhat M V, Ashwin Chapte, Prasanna Paga, Intelligent Wireless Video Monitoring System Using Computer, International Journal of Industrial Electronics and Electrical Engineering, ISSN: 2347-6982, Volume-2, Issue-7, July-2014,***Best Paper Award**.

IP Based Distributed Smart Camera Surveillance System December 2013
Kamal Lamichhane, *Shreeyak S. Sajjan, Huggi Pooja, Rajesh N. IP Based Distributed Smart Camera Surveillance System for Forest Application. International Journal of Electronics Engineering, ISSN : 0973-7383. No.5 (2013) Issue No. :2 (2013).*

WORKSHOPS AND TRAINING ATTENDED

- Completed the ExpecTAtion Workshop (Teaching Assistanceship Workshop) at the University of Waterloo, Canada. Sept, 2015.
- Two weeks International internship on Advance Robotics using ROBOTC from Technophilia Systems. Certified by Robotics Computer Application, Institute of USA.
- Attended 25th Mid-Year Meeting of Scientific Lecturers and symposium at IISc-3 days organized by Indian Institute of Science, Bangalore.
- Attended workshop on IT Security and Ethical Hacking-3 days organized jointly by Java Systems IEEE NMIT.
- Attended workshop on Embedded Systems by Industry Experts-1 day organized by IEEE at NMIT.
- Attended workshop on Digital Image Processing-2 days organized by Scientific Computing Solutions at Madurai.

ACHIEVEMENTS AND EXTRA CURRICULAR

- Currently holding Graduate Research Scholarship and International Master's Student Award from the University of Waterloo.
- Received Gold Medal from the Electronics and Communication department, Nitte Meenakshi Institute of Technology, in Bachelor of Engineering.
- Project "Smart-Helmet to Avoid Accident" is accepted in Texas Instruments Innovation Challenge India Design Contest 2015.
- Granted Full scholarship to pursue B.E from Embassy of India, Kathmandu Nepal. (Entrance -13th Rank).
- Awarded Academic Excellence Award in all semesters with overall GPA 9.75 in B.E, Electronics and Communication Engineering.
- Awarded Academic Excellence Award for being Second topper in college Intermediate level securing 82%.
- Awarded Golden Jubilee scholarship from Embassy of India to pursue Bachelor of Science in Nepal.
- Awarded by Lions Club of Pokhara for securing highest marks in SLC among Government Schools.
- Won first prize on Robotics Competition at National Level Techno-Cultural fest Anadyanta 14.

POSITION OF RESPONSIBILITY

- Microsoft Student Associates-2014 for Bangalore.
- Headed IEEE NMIT Student Chapter for Academic Year 2014-2015.
- Headed IEEE NMIT as **Technical Head** at National Level Tech Fest SERO- 14.
- Organized Workshop on Embedded Systems at Nitte Meenakshi Institute of Technology.
- Organized National Level fest "Anaadyanta" at Nitte Meenakshi Institute of Technology.
- Served Nitte Technical Team as a Technical Head for academic year 2014-15.