Mallesham Dasari

Email: mdasari@cs.stonybrook.edu
Mobile: +1 (573) 202 1805
Website: www.malleshamdasari.wordpress.com/

700 Health Sciences Drive
Chapin Apartments
Stony Brook, NY, USA - 11790

EDUCATION

Stony Brook University, Stony Brook, NY, USA
PhD in Computer Science, Aug 2016 - Present — GPA: 3.88

Osmania University, Hyderabad, India
Master's in Computer Science, Dec 2012 - Dec 2014 — GPA: 4.0

Osmania University, Hyderabad, India
Bachelor's in Computer Science, Aug 2008 - May 2012 — GPA: 4.0

RESEARCH INTERESTS

I am interested in the design and development of wireless networked systems which include: Network Protocols (L2-L4), Data driven Networks, Cellular Networks (LTE, 5G), Wireless Multimedia, IoT and Cyber Physical Systems, Performance and Statistical modeling of such systems.

COMPUTER SKILLS

Languages: C, C++, Linux Kernel Programming, Python, J2SE, MATLAB, OpenCL.
Web Development: HTML, CSS, JavaScript/Node, PHP.
Operating Systems: Linux, Mac OSX, Windows, Android.
Others: NS-3 and Qualnet Simulators, Wireshark, Eclipse, Git, Doxygen, LaTeX.

INTERNSHIPS

Mobile QoE in Wireless Networks — Hewlett Packard Enterprise
May 2017 - Present — California, USA
Understanding quality of end user experience at the last of hop of the network i.e, at the AP/Router level, particularly modeling video telephony applications.

H.264 Video Compression — Uurmi Systems Private Limited
Jan 2012 - May 2012 — Hyderabad, India
Identified computationally intensive block of Video coding with Code profiling. Implementation of new motion estimation algorithm in x264 video encoder.

Grid Computing in Banking — IDRBT
May 2011 - July 2011 — Hyderabad, India
Design and prototype development of banking grid portal. Users could submit their long running jobs (e.g, regression analysis) in the grid of six systems, through the grid portal, for faster execution and results.

INDUSTRY EXPERIENCE

MANET Development — Uurmi Systems Private Limited
May 2014 - Jan 2016 — Hyderabad, India
Development of complete L2/L3 stack for Mobile Ad-hoc Networks in Linux Kernel. It includes a cross layer implementation of TDMA MAC and AODV routing protocols supporting QoS for Multimedia Traffic. A test-bed is setup with 20 ARM DM3730 boards with Linux OS deployed in a multi-hop network.

Network Simulation — Uurmi Systems Private Limited
Dec 2012 - April 2014 — Hyderabad, India
Design and prototype development of complete L2/L3 stack for Mobile Ad-hoc Networks in NS-3 Simulator. It includes the performance bench-marking and verification of new algorithms designed as part of TDMA and multi-path AODV.

Porting H.264 Coding onto DSP — Uurmi Systems Private Limited
June 2012 - Nov 2012 — Hyderabad, India
Development of H.264 Video coding on DSP. It includes porting complex code blocks of X264 encoder and FFMPEG's H.264 decoder onto TI DM3730 DSP processor. Used DVSDK and DSP Link toolkit for ARM to DSP communication.

ACADEMIC PROJECTS

Per-Process based System Calls — Stony Brook University
Aug 2016 - Dec 2016 — Stony Brook, USA
Supporting per-process based system calls in Linux kernel. It includes creating, overriding, modifying, customizing, inheriting of system calls which Linux does not support.

GPU Computing — Osmania University
Jan 2014 - Dec 2014 — Hyderabad, India
Porting of Image restoration algorithm onto GPU using OpenCL on nVidia GPU with 216 cores. It includes code reorganization of belief propagation algorithm.

PUBLICATIONS

Dasari M, Conor Kelton, Javad Nejati, Aruna Balasubramanian, Samir R Das, "Demystifying Hardware Bottlenecks in Mobile Web QoE" (Extended Abstract) in Proc. of ACM SIGCOMM, Aug 2017.

Dasari M, "Real Time Detection of MAC layer Attacks in IEEE 802.11 Wireless Networks", in Proc. of IEEE CCNC, Jan 2017.

Dasari M, Sindhwal H, Vattikuti N, "On Supporting MAC level QoS in TDMA based Mobile Ad hoc Networks", in Proc. of Global Wireless Summit, WPMC, Dec 2016.

Sindhwal H, **Dasari M**, Vattikuti N, "Slot conflict resolution in TDMA based Mobile Ad hoc Networks", in Proc. of IEEE INDICON, Dec 2015.

Vattikuti N, **Dasari M**, Sindhwal, H, "Towards Bandwidth Efficient TDMA Frame Structure for Voice Traffic in MANETs", in Proc. of IEEE CONECCT, July 2015.

Vattikuti N, Sindhwal H, **Dasari M**, Tamma B.R, "Delay sensitive TDMA slot assignment in ad hoc wireless networks", in Proc. of NCC, March 2015.

Dasari M, Sindhwal H, Vattikuti N, "Efficient content-based dynamic search algorithm for motion estimation from videos", in Proc. of ICACCI, Sept 2014.

AWARDS AND HONORS

Tutorial Speaker on *"Wireless Mobile Ad hoc Networks"* at ICACCI International Conference, Kerala, India, 2015.

Innovation Award for proposing new algorithms at L2/L3 networks protocols, Network Research Group, Uurmi Systems Private Limited, India, 2015.

Talk on *"The Role of Real Time Network Protocol for IIoT"*, in Graduate Research Showcase at Missouri University of S&T, Rolla, MO, USA, 2016.

Received NSF Travel awards for ACM SIGCOMM'2017 and IEEE CCNC'2017.

TPC: ICACCI'2014-2017, IEEE INDICON'2015, IEEE CONECCT'2015.

Session Chair: ICACCI'2014-2015, CONECCT'2015, NCC'2015.