



Thomas Valerrian Pasca Santhappan

Resume

Education

- From 2013 **Doctor of Philosophy in Computer Science and Engineering**,
Indian Institute of Technology (IIT) Hyderabad, India
CGPA – 8.5/10.
Dissertation Title : LTE Wi-Fi Radio Level Integration
Advisor : Dr. Bheemarjuna Reddy Tamma
- 2011–2013 **Master of Engineering in Computer and Communication**,
Sri Sivasubramaniya Nadar (SSN) College of Engineering, Chennai, India
CGPA – 8.85/10.
Thesis Topic : Energy efficient sleep/wake scheduling of stations in Wireless Networks
Advisors : Dr. Premkumar Karumbu and Prof. Srividhya
- 2007–2011 **Bachelor of Technology in Information Technology**,
K.S.Rangasamy College of Technology, Tiruchengode, India
CGPA – 9.1/10.
Project Title : Virtual Classroom using Wi-Fi

Achievements

- 2013 University Rank holder, secured 6th rank in Master of Engineering (Anna University, Chennai)
- 2012 Received Institute silver medal for securing 2nd rank in Master of Engineering during academic year 2011-2012
- 2011 Received best project award in B.Tech for the project titled “VIRTUAL CLASSROOM USING WI-FI”

Demo

- 1 **Thomas Valerrian Pasca S**, Sumanta Patro, Bheemarjuna Reddy Tamma and Antony Franklin, "Tightly Coupled LTE Wi-Fi Radio Access Networks: A Demo of LWIP", in Proc. of IEEE COMSNETS, Jan 2017, Bangalore, India.

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Patents

- 1 **Thomas Valerrian Pasca Santhappan**, Bheemarjuna Reddy Tamma, and Antony Franklin, "Traffic steering in aggregated LTE-Wi-Fi Networks", India Patent No: 4705/CHE/2015, (Provisional Filing: 04.09.2015). Patent Pending.
- 2 Sreekanth Dama, **Thomas Valerrian Pasca Santhappan**, Abhinav Kumar, Bheemarjuna Reddy Tamma, Kiran Kuchi "Method for accessing a channel in wireless communication network", US Patent No: 689/CHE/2015, Patent Pending.
- 3 Antony Franklin, Bheemarjuna Reddy Tamma, Prashant Sharma and **Thomas Valerrian Pasca Santhappan**, "Method and System for LTE WLAN Integration at RLC Layer (LWIR) with Integrated LTE Wi-Fi Scheduler" Application Number: 201641025740 (Indian Patent Office).

Journal Publications

- 1 **Thomas Valerrian Pasca S**, Sumanta Patro, Bheemarjuna Reddy Tamma, and Antony Franklin, "Network Coordination Function for Uplink Traffic Steering in Tightly Coupled LTE Wi-Fi Networks," accepted for publication in Elsevier Computer Networks, 2017.
- 2 Sreekanth Dama, **Thomas Valerrian Pasca S**, Vanlin Sathya and Kiran Kuchi, "A Feasible Cellular Internet of Things: Enabling Edge Computing and the IoT in Dense Futuristic Cellular Networks," in IEEE Consumer Electronics Magazine, vol. 6, no. 1, pp. 66-72, Jan. 2017.
- 3 Anil Kumar Rangiseti, **Thomas Valerrian Pasca S**. and Bheemarjuna Reddy Tamma, "QoS Aware load balance in software defined LTE networks", Elsevier Computer Communications, vol. 97, pp. 52-71, 2017.

Conference Publications

- 1 **Thomas Valerrian Pasca S**, Himank Gupta, Bheemarjuna Reddy Tamma and Antony Franklin A, "PRECISE: Power Aware Dynamic Traffic Steering in Tightly Coupled LTE Wi-Fi Networks" accepted for publication in PIMRC, October 2017, Montreal, Canada
- 2 **Thomas Valerrian Pasca S**, Siva sairam prasad Kodali, Kotaro Kataoka, "AMPS: Application Aware Multipath Flow Routing Using Machine Learning in SDN" in Proc. of NCC, March 2017, Chennai, India
- 3 **Thomas Valerrian Pasca S**, Amogh PC, Debashisha Mishra, Nagamani Dheeravath, Anil kumar Rangiseti, Bheemarjuna Reddy Tamma, Antony Franklin A, "Architectural Challenges and Solutions for Collocated LWIP - A Network Layer Perspective" in Proc. of NCC, March 2017, Chennai, India
- 4 **Thomas Valerrian Pasca S**, Badrinaaraayanan Akilesh, Arjun V Anand and Bheemarjuna Reddy, "A NS-3 Module for LTE UE energy Consumption" in Proc. of IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), November 2016, Bangalore, India

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- 5 Prasanth Sharma, Ajay Brahmakshatriya, **Thomas Valerrian Pasca S**, Bheemarjuna Reddy and Antony Franklin, "LWIR: LTE-WLAN Integration at RLC Layer with Virtual WLAN Scheduler for Efficient Aggregation" in Proc. of IEEE Global Communications Conference (GLOBECOM): Selected Areas in Communications: Access Networks and Systems, December 2016, Washington, DC USA
- 6 Sreekanth Dama, **Thomas Valerrian Pasca**, Vanlin Sathya, Kiran Kuchi, "A Novel RACH Mechanism for Dense Cellular-IoT Deployments" in Proc. of IEEE WCNC 2016 Workshop on International Workshop on Mobile Edge Computing and IoT, Doha, Qatar
- 7 Prasanth Sharma, **Thomas Valerrian Pasca S**, Naveen Kamath and Bheemarjuna Reddy Tamma, "Velocity Based Dynamic Flow Mobility in Converged LTE/Wi-Fi Networks " in Proc. of NCC, March 2016, IIT Guwahati, India
- 8 **Thomas Valerrian Pasca S**, Srividya, and K. Premkumar, "Energy Efficient Sleep/Wake Scheduling of Stations in Wireless Networks," International Conference on Communication and Signal Processing (ICCSP), Chennai, India, April 2013

Co-Curricular Activities

- Internship 2015 Worked as research intern at EURECOM, Sophia Antipolis, France for learning and developing LTE open source prototype (OpenAirInterface).
- Internship 2017 Working as research intern at WiSigNetworks (Startup), for developing Narrowband-IoT product.

Extra Curricular Activities

- Athletics Successfully completed 10km and 21km at various club runs (Airtel Hyderabad Marathon, Heritage Run, Purple run) Hyderabad.

Open Source Contributions

- NS3 Contribution Developed LTE UE energy module in NS-3. Find the source code available in github.
- Open Air Interface Developed LWIP module in open air interface and made commercial UE to support LWIP with the developed module. The source code is available in my github.
- Application Developed android applications for network performance measurement.

References

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