Susanna Ruth Peter

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Education

M.Tech in Computer Science, Senior Year 2016 - 2018
National Institute of Technology Karnataka, Surathkal, India
- CGPA of **8.91**/10 (June 2017)

B.Tech in Information Technology 2009 - 2013
Gayatri Vidya Parishad College of Engineering for Women, Visakhapatnam, India
- **78.75%** (June 2013)

High School -St. Joseph's College for Women, Visakhapatnam (CBSE) - 95.4% 2007 - 2009
Secondary School - Timpany Secondary School, Visakhapatnam (CBSE) - 93.8% 2006 - 2007

Experience

Summer Internship at NITK on Implementation of Media Independent Handover (IEEE 802.21) in ns-3 June, 2017 - July, 2017
Ported the partial implementation of MIH to ns-3.26 and working on the complete implementation.

Software Engineer at Tech Mahindra Ltd., Hyderabad Jan, 2014 to June, 2016.
OEM Activation is a Microsoft technology platform to support efficient and secure validation of genuine Windows as well as other Microsoft products and services. Provided Tier 2 support in OEM Activations for BizTalk server 2010 and SQL Server 2008 applications.

Technical Proficiency

Areas of Interest - Networks, Databases, Data Structures
Languages - C, Java, C++, C#, SQL, Python(Basic)
Databases - SQL Server
Application Software - ns-3, MATLAB(Basic)
Web development - HTML, CSS, JavaScript
Tools/Frameworks - JDBC, Servlets, JSP, SQLplus, Git, Weka, ADO.NET, ASP.NET

Selected Projects

All projects available on git : `https://github.com/SusannaRuth`

- **Implementation of Checksum in NAT(Network Address Translator)** : NAT overcomes the problem of IP address depletion by maintaining a mapping of local IP and port tuples to globally unique IP and port tuples. NAT has already been implemented in ns-3 as a GSOC project. This project added the checksum for NAT which recalculates the checksum for IP and TCP/UDP headers after they are modified by NAT.
- **Implementation of Fair Random Early Drop in ns-3** : FRED is an active queue management algorithm that uses per-flow information to handle different types of flows in a fairer manner that RED.
- **Implementation of ELN (Explicit Loss Notification(Ongoing)** : Implementing ELN in ns-3 which provides a mechanism by which a TCP sender can be informed when a loss happens due to reasons unrelated to network congestion(such as wireless bit errors or collisions).
- **Implementation of Modified Decision Based Median Filter for Impulse Noise Removal** : Implemented a modified decision based median filter to remove impulse noise from corrupted images which gives a better performance than median filter. Also extended it by implementing a non local median filter based on the concept of non local means.

Achievements and Awards

- Received Pat on Back Award for being the overall batch topper while undergoing the Elite training at Tech Mahindra.
- Our team in Tech Mahindra received the Best Team Award for two consecutive years due to teamwork and focus on delivery excellence.
- Was presented a Certificate of Excellence by Dr. D. Purandeswari at the event The Engineering Champions 2012 for being the class topper in B.Tech.