



# sodacon 2020

## DATA CONNECTED

#sodacon2020

## IEEE SA and Open Source

Chengappa M R

IEEE Senior Member, IEEE Bangalore Section



# Importance of Open Source to IEEE

- ❑ The Institute of Electrical and Electronics Engineers (IEEE) World's Largest Professional Association, Advancing Technology for Humanity
- ❑ 420,000 members in 160 countries
- ❑ 46 technical societies and councils in 160 countries
- ❑ 1,800 annual conferences hosted
- ❑ 4M+ technical documents published.
- ❑ **Standards:** Over 1100 active standards and over 600 standards under development ( LAN/MAN/WiFi, floating point, VHDL, JTAG)
- ❑ **Industry Connections:** incubates new standards and related products and services by facilitating collaboration among organizations.
- ❑ **Conformity Assessment:** develops and implements programs that couple standards development activities with conformity assessment activities, which help to accelerate market adoption while reducing implementation costs.

# Background



IEEE Members have had an interest in open source code implementation, guidance and have already participated in or currently Participating in OS projects –

- ❑ IEEE Humanitarian Group
- ❑ IEEE Technical Activities
- ❑ IEEE Standards

Discussion among various IEEE OUs and IEEE Legal and Compliance, it was realized that there was an need to formalize the IEEE OS development and provide a platform for this work where IEEE groups can voluntarily engage.





# Some Open Source Projects



**IEEE 1076-2019** - VHDL: VHSIC Hardware Description Language Analysis and Standardization

**P2791:** Standard for bioinformatics Computations and Analysis Generated by High-Throughput Sequencing (HTS) to Facilitate Communication

**P1752: (Open mHealth):** Open Mobile Health Standard for Mobile Health Data led by the Executive Director from Open Mobile Health which has a focus on making data more accessibility through an open standard, open source tools and open source community and seeks to utilize IEEE Open Source Platform to help achieve their goals.

**P9274.1.1 (xAPI):** xAPI Base Standard – JavaScript Object Notation (JSON) Data Model Format and Representational State Transfer (RESTful) Web Service for Learner Experience Data Tracking and Access



# EFFORTS



## ❑ IEEE Open Source Environments

- GitLab (pilots)
- GitHub

## ❑ IEEE Staff and Legal Support

- Josh Gay, IEEE Standards Open Source Community Manager
- External counsel with expertise in open source

## ❑ Outreach

- Leading Open Source organizations
- Open Source conferences

