P1908.1

Submitter Email: arjunaraoc@gmail.com
Type of Project: New IEEE Standard
PAR Request Date: 11-Oct-2011
PAR Approval Date: 07-Dec-2011
PAR Expiration Date: 31-Dec-2015
Status: PAR for a New IEEE Standard

1.1 Project Number: P1908.1
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Virtual Keyboard Standard for Indic Languages

3.1 Working Group: Indic Virtual Keyboards (COM/SC/IndicVirtualKeyboards)
Contact Information for Working Group Chair
   Name: Chavala Rao
   Email Address: arjunaraoc@gmail.com
   Phone: +919880229373

3.2 Sponsoring Society and Committee: IEEE Communications Society/Standards Committee (COM/SC)
Contact Information for Sponsor Chair
   Name: Curtis Siller
   Email Address: c.siller@comsoc.org
   Phone: 480 857 0192

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2012
4.3 Projected Completion Date for Submittal to RevCom: 05/2013

5.1 Approximate number of people expected to be actively involved in the development of this project: 10
5.2 Scope: This standard defines virtual keyboards for Indic language computing, primarily for use on mobile phones and tablets with touch interface. The target languages are the Government of India's official languages and their scripts, as recognized by the Government and Unicode. This standard includes definition for virtual keyboard configurations with a limited set of keys (12), and also for larger set of keys (more than 12). The standard includes prototype reference implementation of device driver and software.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: The standard brings the benefits of Indic language computing to the vast majority of Indic language users.

5.5 Need for the Project: The standard helps the industry to implement Indian language input in a portable and standardized manner. There is currently no defined, independent standard for virtual keypads for Indian languages. INSCRIPT cannot be adopted easily for the following reasons: It uses the top row (the row above QWERTY) of the conventional keyboard. It has been designed with physical QWERTY keyboard as standard. It does not accommodate the preferences of languages other than Hindi with Devanagari script. With the smaller screen size and resolution on mobile phones, INSCRIPT is not usable for Hindi, as well.

Without this standard, and there being no single dominant player in the industry who can drive defacto standards, vendors will implement proprietary versions, which will hinder the growth of the industry and acceptance of Indic input methods by users.

Furthermore, very few phones support Indic input, and even in cases where Indic languages are supported, proprietary methods are used that hinder widespread use of Indic languages. This standards is needed since a large majority of Indians are not comfortable using phones with English support. INSCRIPT layout standardized by the Indian government in 1986 for QWERTY keyboards manifest limitations for certain languages and have thereby prevented widespread, practical use. Phones with touch interface that support standard virtual keyboard layouts will help everyone to comfortably use phones for information comfortably, since a touch interface can display characters for each language.

5.6 Stakeholders for the Standard: Stakeholders for this standard include: Smart phone companies; software development companies; telecom companies; government departments or institutions funded partly by government for promotion of Indic
languages in information technology.

Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
   Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation): The best practices from ISO 9995, "Information Technology - Keyboard Layouts for Text and Office Systems," guidelines which are defined with physical keyboards as scope, will be reviewed for applicability to this standard.