

### Template for Extended Abstracts

Using this template will provide the reviewers with uniform information, which will simplify their work. Please delete the guidance given between < > when typing.

**1 WG to which this Contribution is submitted (see <http://www.wwrf.ch/workinggroups.html> for working group descriptions):**

- VIP CC : The Connected Vehicle & Intelligent Transportation Systems**
- VIP EMW : 5G E/M-Health, Wearables & IoT**
- WG HF : NR & High Frequency (mmWave and THz) Radio Communication Technologies**
- WG A/B : Broadband4All Services, User Needs, Requirements, innovative Business Models**
- WG C : New Directions in Communication Architectures and Technologies : SDN,NFV, Network Slicing**
- WG D : Radio Communication Technologies: SDR, Cloud RAN, 5G New Radio, SDR and Spectrum Sharing**

**2 Title of the contribution**

SECURITY AND PRIVACY IN CONNECTED VEHICLES

**3 Contact details of the corresponding author**

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**4 Keywords**

V2X, ETSI ITS, DSRC WAVE, Security, Privacy, IEEE 802.11p

**5 Extended Abstract**

After more than one decade of continuous research, standardization, and trials, Intelligent Transport System is maturing into the application of advanced ICT (including information communication, control, sensing) technologies to road transportation systems, with the objective of enabling information exchange between human, vehicle, and infrastructure, thereby establishing a more efficient, convenient, environmental-friendly, and safer comprehensive transportation system. Various standards have been developed to realize this fascinating technology, ETSI ITS, IEEE 802.11p, SAE (Society of Automotive Engineers)

J2945/1, working divergently and yet at the same time converging on to what has become known as V2X communication. It has created an entire eco-system encompasses the connected cars (cars equipped with WiFi, LTE(Long Term Evolution, better known as 4G) , 3G), roadside infrastructure (intelligent control systems, warning systems, sensors), and communication infrastructure (LTE, satellite, and 5G) so on and so forth uniting the car manufacturers, safety sensor manufactures, regulators, and service providers alike. Essentially, ICT, 5G and ITS join a perfect union providing vehicular communication, autonomous driving, traffic safety, cooperative traffic efficiency as well as taking into consideration for addressing of security and privacy concerns of users using V2X services. V2X and vehicular communication is not just about vehicle to vehicle any more, it broadly covers all things vehicle, from vehicle to vehicle, vehicle to infrastructure, and vehicle to pedestrian.

## **General Instructions**

Contributors should submit an extended abstract to the relevant Working Group (WG) for review. Extended abstracts should be at least two pages (A4 or Letter) in length, either in plain ASCII text, MS Word or Adobe PDF.

## **Procedure for Paper Submission**

### **Review Stage**

Fill in the cover page information for your contribution.

Add your extended abstract

Submit your contribution either in plain ASCII text, MS Word or Adobe PDF to the email address given in the call for papers of the meeting.

Call for papers presents the important dates for contributions, comments and final versions.

### **Final Stage**

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## Abstract