CELTIC-NEXT Proposers Day
26th of January 2022, Online via WebEx
Pitch of the Project Proposal

Efficient and Reliable Intelligent Security Solutions for EV Energy Ecosystem

Nishat I Mowla, RISE Research Institutes of Sweden
nishat.mowla@ri.se
Modern energy ecosystems create not only new opportunities but also many new challenges. In particular, cybersecurity issues result in some unique challenges and innovative solutions.

In this proposal, we investigate practical solutions where cybersecurity, wireless connectivity, and machine learning technologies are combined to handle various issues in electric vehicles and their ecosystem.

This area is mostly unexplored with important practical implications – to security, connectivity, and environmental issues.
RISE is a Swedish independent, state-owned research institute that offers unique expertise all over Sweden with over 100 testbeds and demonstration facilities.

RISE has approximately 2,800 employees who support and promote all manner of innovative processes.

RISE has a strong background in safety, security and machine learning. Our project portfolio includes projects around driver interaction, cooperative intelligent transportation systems, driver monitoring and modelling, and much more.
Proposal Introduction

**Vision:**
The development of intelligent security solutions for 5G-TSN integrated EV energy ecosystem

**Motivation:**
The integration of information and communications technology with energy ecosystem opens new security and privacy challenges, with far reaching impact on our society

**Content:**
The proposed solution will utilize advanced communication and AI technologies to support and secure energy ecosystem
Proposal Introduction

**Outcome:** The project will result in novel, cloud-assisted on-device energy security solutions with reliable 5G-connectivity support for Automotive AI

**Impacts:**
- Facilitate the development of security solutions for 5G-TSN integrated EV-based energy industry
- Support research and development of energy ecosystem security that is heavily unexplored but changing rapidly by the combination of technology and infrastructure integrations
- Disseminate findings through top-notch publications, standardization efforts, and networking activities

**Time plan:** The project duration is estimated to be 36 months
Partners

Existing consortium, involved countries:

Department of Computer Science and Department of Mobility and Systems, RISE, Sweden

Communication Systems and Networks research group at Mid Sweden University, Sweden

Expertise, profiles and types of partners we are looking for:
Automotive, telecommunication, and energy companies interested in cybersecurity, communication, and energy research

Efficient and Reliable Intelligent Security Solutions for EV Energy Ecosystem, Nishat I Mowla, RISE & nishat.mowla@ri.se
Contact Info

For more information and for interest to participate please contact:

Nishat I Mowla, RISE
nishat.mowla@ri.se
+46 10 228 4467
Lindholmspiren 3A, 417 56 Göteborg, Sweden

Arash Vahidi, RISE
arash.vahidi@ri.se
+46 10 228 43 Ole Römers väg 5A, 223 63 Lund, Sweden

Thomas Rosenstatter, RISE
thomas.rosenstatter@ri.se
+46 10 516 5539
Lindholmspiren 3A, 417 56 Göteborg, Sweden

Joakim Rosell, RISE
Joakim.rosell@ri.se
+46 10 228 40 80
Lindholmspiren 3A, 417 56 Göteborg, Sweden

Presentation available via: