Connected Cars & Cyber Security, a new Télécom ParisTech Chair with Nokia, Renault, Thales, Valeo and Wavestone

The topics of the connected and autonomous cars focus on some of the sharpest and most sensitive technical, social, ethical, economical and legal challenges of the digital transformation. However, the design of an autonomous object, mobile in a human environment, seems accessible to future technologies and cyber security must be considered as a factor for success. To anticipate this eventuality, Télécom ParisTech, with the support of the Fondation Mines-Télécom, launched a new research and teaching Chair for a period of five years with five major companies: Nokia, Renault, Thales, Valeo and Wavestone.

The goal of the “Connected Cars & Cyber Security” (C3S) Chair is to develop, in close cooperation with its partners, training programs and research activities at the international level. The Chair will focus on the challenges linked to the emergence of this new mobility. Is the desired level of autonomy of the vehicle compatible with its technological regulation? Which level of security for the autonomous vehicle? Can it be protected from all digital intrusion? Will it respond to the mobility needs of today’s townsfolks and will it even contribute to improve the traffic flow, safety as well as help to reduce pollution? Will the embedded intelligence be able to detect anomalies and correct them in real time? Could the exchanged data be intercepted and used without control? What are the legal and societal components to consider in such projects?

With the close collaboration of five major industry players, Télécom ParisTech strives to create a unique ecosystem and to establish the C3S Chair as a reference in research and training in the field of cyber security of connected and autonomous cars. Lead by two professors and researchers from Télécom ParisTech, Houda Labiod, an expert in the field of cyber security of intelligent and cooperative transport systems, and Guillaume Duc, a specialist of the security of embedded systems, the Chair will assemble a multidisciplinary team. Its will conducted its works according to five main themes:

1. Risk analysis and dependability
2. Protection of data and data flow in real time, cryptography and agility
3. Authentication, identity and behavioral fingerprinting
4. Resilience by design
5. Protection of the personal information involved in the connected vehicle (societal and legal aspects). For this fifth focus, the C3S Chair will work closely with the IMT “Values and Policies of Personal Information” Chair in which Télécom ParisTech already participates.

The C3S Chair is the 12th research and teaching Chair at Télécom ParisTech sponsored by companies. It is also the second Chair dealing with cyber security within the IMT and within the Université Paris-Saclay.

Save the date – Launching event on October 5, 2017

On Thursday, October 5, at 5 PM at Télécom ParisTech, a launching event of the Chair will be organized, with a presentation of the five research axes, talks by the Chair’s partners and a round table on the theme of the cyber security of connected cars. More details to come in September at www.telecom-paristech.fr/c3s.
The Télécom ParisTech Grande Ecole is one of the Top 4 Engineering Schools in France. It is ranked in first place for its relationships with businesses. This public school guarantees excellent employability in all fields and has emerged as the number one engineering school in the field of digital technology. Its excellent teaching and innovative pedagogy places Télécom ParisTech at the heart of a unique ecosystem of innovation which is built upon the interactions and transversality between education, interdisciplinary research, its two business incubators, and its campuses (Paris and Sophia Antipolis - EURECOM). It is rated A+ by AERES (Evaluation Agency for Research and Higher Education) and has received the Carnot Télécom & Société Numérique label. Its research covers the entire field of digital technology. Télécom ParisTech is part of the IMT (Institut-Mines-Télécom) and is a founding member of the internationally-renowned ParisTech network. It is to become the College of innovation through digital technology within Paris-Saclay.

Fondation Mines-Télécom supports IMT (Institut Mines-Télécom) in its missions at the heart of digital, industrial, energy and educational transformations. Created in 2008 and recognized as being of public utility since 2012, Fondation Mines-Télécom contributes to the development and reach of IMT and its engineering and management graduate schools: IMT Atlantique, IMT Lille Douai, Mines Albi, Mines Alès, Mines Saint Etienne, Télécom ParisTech, Télécom SudParis and Télécom Ecole de Management. On the strength of a dozen or so partnership programs, of which 3 are founding programs, 60 partnerships with enterprises and with the support of more than 1,700 individual patrons, alumni and parents of students, the Foundation is committed to 4 major themes: training, innovation and entrepreneurship, research and foresight.

We create the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry’s most complete, end-to-end portfolio of products, services and licensing.

Groupe Renault has been making cars since 1898. Today it is an international multi-brand group, selling close to 3.2 million vehicles in 127 countries in 2016, with 36 manufacturing sites, 12,700 points of sales and employing more than 120,000 people. To meet the major technological challenges of the future and continue its strategy of profitable growth, the Group is harnessing its international growth and the complementary fit of its three brands, Renault, Dacia and Renault Samsung Motors, together with electric vehicles and the unique Alliance with Nissan. With a new team in Formula 1 and a strong commitment to Formula E, Renault sees motorsport as a vector of innovation and brand awareness.

Valeo is an automotive supplier, partner to all automakers worldwide. As a technology company, Valeo proposes innovative products and systems that contribute to the reduction of CO2 emissions and to the development of intuitive driving. In 2016, the Group generated sales of 16.5 billion euros and invested over 11% of its original equipment sales in Research and Development. Valeo has 168 plants, 20 research centers, 38 development centers and 15 distribution platforms, and employs 100,900 people in 32 countries worldwide. Valeo is listed on the Paris stock exchange and is a member of the CAC 40 index.

About Thales - www.thalesgroup.com
Thales is a global technology leader for the Aerospace, Transport, Defence and Security markets. With 65,000 employees in 56 countries, Thales reported sales of €14 billion in 2016. With over 20,000 engineers and researchers, Thales has a unique capability to design and deploy equipment, systems and services to meet the most complex security requirements. Its unique international footprint allows it to work closely with its customers all over the world.

About Wavestone – www.wavestone.com @wavestoneFR
In a world where permanent evolution is the key to success, Wavestone’s mission is to enlighten and partner business leaders in their most critical decisions. Wavestone draws on some 2,500 employees across four continents. It is a leading player in European independent consulting, and the number one in France. Created from the merger, at the beginning of 2016, of Solucom and Kurt Salmon’s European activities (excluding Retail & Consumer Goods consulting), Wavestone is a company listed on Euronext Paris and eligible for the PEA-PME – a French investment instrument that encourages individuals to invest in smaller and intermediate firms. In 2017, Wavestone has been labeled Great Place To Work®.