Cyber Security Center
Université Bretagne Sud

UMR IRISA
Research Institute in Computer Science and Random Systems

Jamal EL HACHEM

Associate Professor
Computer Science

Scientific research is one of the most exciting and rewarding of occupations

By Frederick Sanger

BIO

Jamal EL HACHEM is an Associate Professor at ENSIBS Vannes, University of Bretagne Sud (since the 1st September 2019). Her research activities focus on investigating Model-Driven solutions for cybersecurity and cyberdefense engineering in a System-of-Systems environment. She obtained her Ph.D. title at University of Pau in December 2017 defending her thesis entitled “A Model Driven Method to Design and Analyze Secure System-of-Systems Architectures. Application to Predict Cascading Attacks in Smart Buildings”. She then worked two years as a temporary research assistant at University of Pau. She collaborated on software engineering projects with international research labs (CREST- University of Adelaide, School of Innovation design and Engineering- Mälardalen University).

100% of the researcher's activity devoted to cybersecurity

Focus :
Research [X]
Application field [X]

Core data

PhD students: 2

Publications/Journals: 1– Journal of Systems and Software (JSS).

Conferences: 13 – ICECCS, APSEC, SoSE, etc.

Awards/Scholarships:
- Thesis grant from the Landes departmental council, Mont-de-Marsan, 2014-2017, amount: 84 000€;
- Merit-based Award of SIGSOFT CAPS (amount: US $ 350) for participation in ICSE, Italy, 2015;
- Scholarships from the University of Adelaide, Australia (amount: AU $ 5400) and UPPA (amount: 900€) for an international research visit, February - April 2017

International collaborations: CREST team - University of Adelaide (Australia);
School of Innovation Design and Engineering - Mälardalen University (Sweden)

Area(s) of research

Investigation of model-driven engineering and cybersecurity to guide cybersecurity modeling and analysis of software-intensive systems.

Fields of expertise

Modeling, analysis and simulation of cybersecurity
Modeling and assessment of vulnerabilities
Prediction / discovery of security attacks
Model-Directed Engineering (MDE) techniques
Domain Specific Modeling Languages (DSML) definition

Applicative examples

Security in different types of systems such as Systems-of-Systems, software-intensive systems, multi-agent systems
Security in different domains such as smart buildings, autonomous vehicles, smart electricity grids, Internet of Things, defense, E-health systems, etc.

Responsibilities

Responsible of gender diversity in the ENSIBS engineering school
Responsible of the integrated preparatory class (PEI STI2D de l'ENSIBS)

Domaine

Security by design

Mots clés

Security by Design
Software Vulnerabilities
Systems-of-Systems security
Model Driven Engineering (MDE)

Contact

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