Selected Chapters				14X060
				Guillaume Chanel (CC) / NN
Nombre d'heures par semaine	cours exercices pratique	2 2 1*	Semestre d'automne Semestre de printemps Total d'heures	 ☒ 56/70*

Cursus	Type	Crédits ECTS
Master en sciences informatiques 90 ECTS	Option	4
Master en sciences informatiques 120 ECTS	Option	5

OBJECTIFS :

The teachers present a few chapters on specific, innovative topics related to their research in the Computer Science Department. The topics change every year.

CONTENU :

Year 2021 :

- Media forensics (Taras Holotyak) : introduce the recent tendencies in the methods of information extraction for the authentication of media objects. The overview will deal with the forensic analysis of both digital and physical media with respect to digital image forensics, source identification, manipulation detection, etc.
- Machine learning methods in modern steganography (Taras Holotyak) : overview the perspectives of machine learning methods usage in steganography and steganalysis of digital images. Course will cover theoretical and practical aspects of deep neural networks application to design and attack the different covert communication scenarios.
- Free/Open-source codes and licences (Jean-Luc Falcone) : introduction to free and open-source softwares as well as to the associated licences
- Human factors in artificial intelligence (Guillaume Chanel and Daniel Lewkowicz Human Design Group): the goal of this chapter is to introduce the role of human factors in the design of complex systems and to apply artificial intelligence methods to this domain.
- Gaussian processes (Bastien Chopard) : presentation of gaussian processes and their advantages.

Year 2022 in progress

Forme de l'enseignement	Courses and exercises
Documentation	-
Préalable requis	-
Préparation pour	-
Mode d'évaluation	Continuous controls
Sessions d'examens	-