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**I Seminari su “Information Technology Outlook” – Dottorato di Ricerca in Informatica e Matematica**

**AVVISO DI SEMINARIO**



**Matteo Cristani**

Dipartimento di Informatica  
Università degli Studi di Verona

**Lunedì 15 novembre 2021  
ore 15:00**

**Sala Consiglio, 7° piano**

**Introduction to legal reasoning**

The seminar shall address the concept of a system of logical inference that would be able to establish whether a given state of affairs in the reality is compliant to a given set of normative statements, that constitute what we shall name the normative background. At first we shall introduce the logical base of such a system, essentially nested on a non-monotonic logic, topped with deontic modal operators, used to model the basic notions of a normative system, thus intended to model obligations, prohibitions and explicit permissions. The resulting framework is discussed on the way in which it deals with the modeling issues of norms, including various basic concepts such as responsibility, exemption, privilege, and mainly repair chains, also know as contrary-to-duty obligations. In the second part of the seminar I shall detail the aspects of concrete mapping of legal text into a reasoning formalism and deal with the main issues of machine learning opportunities in this field.

**Short bio.** Matteo Cristani is Associate Professor of Information Technology at the University of Verona. He is the author of numerous journal and conference papers on various topics related to Knowledge Representation, with a specific emphasis on Formal Ontology, and Non-Monotonic Systems, with a specific emphasis on legal reasoning. He has been member of several program committee of International Conferences (JURIX, COMMA, ICAART, WEBIST, ICAIL, KES SDF, KES) and he is the General Chair of the 22nd International Conference on Knowledge Engineering (KES 2022) to be held in Verona.