

## Enterprise Architecture and Business Process Analysis

Frank Armour  
Kogod School of Business  
American University  
farmour@american.edu

Stephen Kaisler  
Principal  
SHK & Associates  
skaisler1@comcast.net

Enterprise Architecting (EA) is the process of developing enterprise Information Technology architecture. An EA focuses on a holistic and integrated view of the why, where, and who uses IT systems and how and what they are used for within an organization. An enterprise architect develops the strategy and enables the decisions for designing, developing, and deploying IT systems to support the business as well as to assess, select, and integrate the technology into the organization's infrastructure.

### Session 1

The first session starts out with the paper: *Understanding the Benefits and Success Factors of Enterprise Architecture*, which identifies forty EA benefits that are grouped into five categories (operational, managerial, strategic, IT infrastructure and organizational) and thirty-seven EA success factors.

The second paper *Enterprise Architecture Planning: Analyses of Requirements from Practice and Research*, combines the results of both the practitioner interviews and the literature review to emphasize the gaps between the two worlds.

The third paper, *Institutionalization of Contested Practices: A Case of Enterprise Architecture Implementation in a US State Government*. Using an institutional change and translation perspective, the paper investigates Enterprise Architecture (EA) implementations in a US state government, highlighting the struggles in translating new practices to connect to potential users, existing norms, regulations, and cultural values.

### Session 2

The first paper in the second session, *Object-Relational Mapping Revisited - A Quantitative Study on the Impact of Database*

*Technology on O/R Mapping Strategies*, proposes a framework and conducts a quantitative study of the impact of object-relational mapping strategies on selected non-functional system characteristics.

The next paper, *A Semi-Automatic Approach for Eliciting Cloud Security and Privacy Requirements*, presents an approach that takes as input abstract security and privacy requirements and produces through a semi-automatic process various alternative implementation options for cloud services.

The third paper, *15 Years of Enterprise Architecting at HICSS: Revisiting the Critical Problems*. reviews minitrack papers, their results and reports on progress made and challenges that remain to be addressed, as well as new challenges that have emerged.

### Session 3

The third session starts out with the paper: *Identifying Potential Problems and Risks in GQM+Strategies Models Using Metamodel and Design Principles*. Which defines modeling rules for GQM+Strategies with a metamodel specified with a UML class diagram.

The second paper, *Adaptive service composition based on runtime verification of formal properties*. focuses on an adaptive service composition approach based on the lightweight use of formal methods. The aim is detecting undesirable behaviors in the execution trace.

The third paper, *A Connection of Task-centric with Artefact-centric Models through Semantic Task Specification and its Use for Formal Verification* present a new and systematic approach for connecting a task-centric BPM (in BPMN) with a model of an artefact centric object life cycle through semantic task specification.