Architectural Knowledge

- Architectural knowledge can be characterized by the technical and contextual information that support decisions related to software architecture of a system or a family of systems.

Architectural Knowledge Management

- Architectural knowledge management aims to introduce various processes and practices for identifying, capturing architectural knowledge and expertise and making it available for transfer and reuse across projects.

Unavailable of software architecture knowledge results in:
- system evolution problems
- difficulties in detecting and correcting design errors
- architectural mismatches between COTS components

Challenges in architecture knowledge management
- Lack of support in terms of practices and tools
- What types of architectural knowledge is useful
- How to store and manage the knowledge
- Make knowledge capture cost-effective
- Make architecture knowledge easy to access

Specific Questions to Investigate

- Where is the architecture knowledge (architects’ mind, meeting minutes, and etc.)?
- What are the influencing factors (requirement, organization constrains, schedule, and etc.)?
- What’s the evidence of benefits in terms of money, time to market, employee satisfaction and etc?
- What characteristics does important design decisions have?
- How does an architecture ontology look like?
- How to describe architecture ontology?
- How to share architecture knowledge?