

Incorporating Innovative Practices

in Software Engineering Education

Ghazi Alkhatib

Princess Sumaya University for Technology

Amman - Jordan

Zakaria Maamar

Zayed University

Dubai - United Arab Emirates

Ghassan Issa

Petra University

Amman – Jordan

Aiman Turani

Applied Science University

Amman – Jordan

Daoud Daoud

Princess Sumaya University for Technology

Amman – Jordan

M. Ibrahim Zaroor

Petra University

Amman - Jordan

***Abstract*—Software Engineering (SE) practices deals with business requirements that continue to operate in dynamically changing and turbulent environments. SE practitioners must confront the business need for persistent innovation and build appropriate future workforce culture. Agile software development approaches view change from a perspective that reflects today's tumultuous business and technology environments. Introducing these innovative methodologies, along with the more traditional Capability Maturity Model Integration (CMMI) method, in IT departments is a challenging task. Such task requires not only technology expertise and knowledge, but also the human side of organization, team, and individual readiness to accepting such a challenge. To deal with this latter side, the paper employs creative thinking processes and the four brain concept. In such environment, linking agile methods and CMMI is imperative to improving software quality.**

***Keywords*-Software engineering education, Agile methods, CMMI, HBDI, creative thinking, visual studio team system**