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, createuve thinking, visual studio team system