Incorporating Innovative Practices in Software Engineering Education

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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 CMMI method, in IT department is a challenging task. Such task requires not only technology knowledge, but also the human side of organization, team, and individual readiness to accepting such a challenge. To deal with this 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.