Conference Program

The 13th International Sun Conference on Teaching and Learning

Teaching and Learning Experientially

March 17 & 18, 2016

40. Learning Recursion: A Technique to Translate Iterative Methods into Recursive Methods

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The notion of recursion has been one of the most challenging topics in delivering the fundamentals of computer programming courses, more specifically in Elementary Data Structures and Algorithms (CS II). Although there have been several approaches that help students to identify base and recursive cases at the time they write recursive-based methods, no algorithm has been proposed yet. We proposed a teaching technique that helps students to translate components from a loop-based programming to a tail recursive one. Then, we simplify the recursive method by exchanging local variables by arguments. We provide examples to illustrate this algorithm.

41. Stick it Up: Research Posters to Improve Engagement and Outcomes

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Student researchers often lack motivation because they believe that no one but the instructor will ever see the outcomes of their work. Requiring all master's of social work students to present a large poster of their research has increased student investment in the research process and pride in their work. Students are completing more difficult projects and report enjoying sharing their work and see that of classmates. Community partners and mentors also see the outcomes of agency-based projects in an efficient and interactive way. We share guidelines, rubrics, and a process with other student populations.

42. Experiencias Innovadoras para Alumnos del Siglo XXI

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En este documento se presenta una experiencia innovadora sobre diversos retos llevados a cabo durante una semana en el Tecnológico de Monterrey con alumnos de profesional, de diferentes carreras y semestres, excluyendo a los de nuevo ingreso. Los retos presentados en este documento tienen en común que son ajenos al área académica, con esto se busca demostrar las ventajas de exponer a los alumnos a cuarenta horas intensivas de aprendizaje experiencial, dentro del proyecto denominado Semana i. En este trabajo se realiza un diagnóstico y se presenta un análisis del impacto formativo en los alumnos que participaron.