This invitation is extended to all Staff and HDR Students

Research Seminar
Centre for Informatics and Applied Optimisation

Speaker: Dr Reinier Diaz Millan

Date: **Thursday 16 November 2017 @ 11.30am**

Room: **Room T121, Mt Helen Campus**
Or Visimeet ID: 1182235

Title: "**On the splitting optimization problem with enlargement**"

Abstract:

In this paper, we present two approximate versions of the forward-backward splitting method for solving the minimization problem. In both cases, the objective function is the sum of two convex functions, maybe not differentiable. The algorithms involve, at each iteration, inexact evaluations of the backward operator and approximate subgradients of the functions (namely: the ε-subgradients). The first method considers an absolutely summable error criterion, whereas the second method uses a relative error criterion recently introduced for approximating proximal operators. Various stepsize rules are considered, including both diminishing and non-vanishing stepsizes, and convergence in objective values and convergence to a neighbourhood of the optimal set are obtained.
The convergence analysis of the two methods shares underlying elements.

Biography:

Reinier attained a PhD in Mathematics from the Federal University of Goiás in 2015. His PhD thesis is entitled "On several algorithms for variational inequality and inclusion problems". Since 2013, he is a professor at the Federal Institute of Goiás. Between January 2016 and January 2017, he was a postdoc at the University of South Australia, under the supervision of A/Prof Regina Burachik.

This year he was invited to be a permanent faculty member of the post-graduation program at the Federal University of Goiás. He obtained Master degree in Mathematics at the Institute of Pure and Applied Mathematics, Rio de Janeiro, Brazil in 2011.

In 2005, he gained a BSc degree in Mathematics from the University of Havana, Cuba. Hi research is focused on Continuous Optimization, specifically Variational Inequalities, Inclusion Problems and Convex Optimization problems. He has focused his efforts on splitting algorithms, solving problems where the objective function or operator may be separated in the sum of two or more components.

The seminar is available at other FedUni campuses via the visimeet system. If you would like to join the seminar please contact Evan Dekker, e.dekker@federation.edu.au who will organise an invitation to join the seminar from your computer.

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