Control and Cybernetics

vol. **36** (2007) No. 3

Dedicatio

This volume in honour of Professor Stefan Rolewicz is to celebrate his 75th birthday. Stefan Rolewicz is one of the pioneers of modern control and optimization.

The volume consists of about twenty original contributions written by Stefan Rolewicz's former students, colleagues and friends. The idea of preparing such a volume was met with enthusiasm and willingness to contribute.

The contents is divided into three parts. The first part has been devoted to control and optimization. This has been the primal field of scientific activity of Stefan Rolewicz where he has proposed inspiring and fruitful ideas published in a wide range of papers and two books.

The second part has been devoted to functional analysis in which Stefan Rolewicz did his early research under guidance of Stanisław Mazur, a leading personality of the Polish Mathematical School.

In the third part life and work of Stefan Rolewicz are highlighted.

We wish to thank all the contributors and referees for their so close and active cooperation. Our gratitude extends also to the Editorial Board of Control and Cybernetics for accepting this volume as a special issue of the journal.

We do believe that the volume will serve as a valuable and stimulating reference for all those who are working in the field.

Guest Editors

Ewa Bednarczuk
Zdzisław Naniewicz
Dariusz Zagrodny

Warsaw, August 2007

Control and Cybernetics

vol. **36** (2007) No. 3

CONTENTS

Dedicatio 485

Control and Optimization 489

Sz. DOLECKI, G.H. GRECO: 491
Towards historical roots of necessary conditions of optimality: Regula of Peano

L.Q. ANH, Ph.Q. KHANH: 519
Existence conditions in symmetric multivalued vector quasiequilibrium problems

T.Q. BAO, B.S. MORDUKHOVICH: 531
Variational principles for set-valued mappings with applications to multiobjective optimization

E. BEDNARCZUK: 563
On weak sharp minima in vector optimization with applications to parametric problems

F.S. DE BLASI, V. LAKSHMIKANTHAM, T. GNANA BHASKAR: 571
An existence theorem for set differential inclusions in a semilinear metric space

M. CASTELLANI, M. PAPPALARDO: 583
Local cone approximations in optimization

A. CEGIELSKI: 601
A generalization of the Opial's theorem

Z. DENKOWSKI, St. MIGÓRSKI, A. OCHAL: 611
Optimal control for a class of mechanical thermoviscoelastic frictional contact problems

D. DENTCHEVA, A. RUSZCZYŃSKI: 633
Composite semi-infinite optimization

Sz. DOLECKI: 647
Adherence of minimizers for dual convergences

A. IOFFE: 659
On regularity estimates for mappings between embedded manifolds

A. JOURANI: 669
Radiality and semismoothness

I. LASIECKA, D. TOUNDYKOV: 681
Stability of higher-level energy norms of strong solutions to a wave equation with localized nonlinear damping and a nonlinear source term

K. MALANOWSKI: 711
A characterization of stability and sensitivity properties for state-constrained optimal control

Z. NANIEWICZ: 727
Hemivariational inequalities governed by the p-Laplacian - Neumann problem

H.V. NGAI, M. THÉRA: 755
φ-regular functions in Asplund spaces

SONG WEN: 775
Error bounds for convex constrained systems in Banach spaces

D. ZAGRODNY: 793
A weak* approximation of subgradient of convex function

L. ZAJÍČEK: 803
A C^1 function which is nowhere strongly paraconvex and nowhere semiconcave

T. ZOLEZZI: 811
Condition numbers and Ritz type methods in unconstrained optimization

Functional Analysis 823

L. GÓRNIEWICZ, M. ŚLOSARSKI: 825
Fixed points of mapping in Klee admissible spaces

J. MUSIELAK: 833
On spaces with mixed modulars and some spaces of temperate distributions

D. PRZEWORSKA-ROLEWICZ: 841
Some summation formulae in commutative Leibniz algebras with logarithms

W. ŻELAZKO: 859
Continuous characters and joint topological spectrum

Professor Stefan Rolewicz 865

Interview 867

Vita 873

List of publications 875