Levente Adalbert Kovács, PhD

PUBLICATION LIST

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[b-1] **L. Kovács**, B. Kulcsár, A. György, Z. Benyó – *Robust servo control of a novel type 1 diabetic model*, Optimal Control Applications and Methods, Special Issue on 'Optimal Control in Diabetes', ISSN 0143-2087, 2009, *revised*.

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e. Other presentations

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[e-9] **L. Kovács** – *Extension of the Bergman minimal model for the glucose-insulin interaction* (in Hungarian), "10 years of Biomedical Engineering Research in Hungary" Conference, Budapest, Hungary, electronic publication #04, July 20, 2005.

[e-10] **L. Kovács** – *Medical Information System for Diagnosing Diabetes Mellitus and Hearing Disorder in Children*, (in Hungarian). Informatics Conference of the World Council of Hungarian Professors, Budapest, Hungary, May 2004.

[e-11] Z. Benyó, **L. Kovács**, Gy. Várallyay Jr., L. Szilágyi – *OTKA T042990: Diagnostic-purpose Research of Biological Signals using System Theory,* (in Hungarian). XXIII. Centenary Neumann Colloquium and Exposure, Veszprém, Hungary, November 2003.

[e-12] **L. Kovács** – *Decoupling possibilities of the Three Tank System*, (in Hungarian). XXVI. Scientific Student Conference, Budapest Polytechnic, 7 p., Budapest, Hungary, November 2001.

[e-13] **L. Kovács** – *The three tank system (3TS). Case study*, (in Romanian), Automatica Academica-01, „Politehnica" University Timisoara, Romania, May 2001.

[e-14] **L. Kovács** – *Control strategies for electrical driving systems with variable moment of inertia* (in Hungarian), XXV. Student Conference, Budapest Polytechnic, 34 p., Budapest, Hungary, November 2000.

f. Diploma thesis (as supervisor)

[f-1] András György– *The novel molecular model of human blood glucose system from the aspect of control theory*, BME-IIT, June 2009.

[f-2] Péter Tímár– *Software for classifying drivers' stress factor* (in Hungarian), BME-OBMK, June 2009.

[f-3] János Urbán– *Analyzing drivers' physiological signals* (in Hungarian), BME-OBMK, June 2009.

[f-4] Máté Balicza– *Optimizing urine analyzer's calibration* (in Hungarian), BME-OBMK, June 2009.

[f-5] Anikó Vágvölgyi– *Whole cell recording of hippocampal basket cells, paired with dual channel 2-photon imaging* (in Hungarian), BME-OBMK, June 2009.

[f-6] Tamás Ferenci– *Biostatistical analysis of obesity related parameters in Hungarian children* (in Hungarian), BME-IIT, June 2009.

[f-7] Zoltán Börcsök – *Analyzing melody of the infant cry* (in Hungarian), BME-IIT, June 2009.

[f-8] János Hajdu – *Data transmission of drivers' physiological parameters on CAN bus* (in Hungarian), BME-OBMK, February 2009.

[f-9] Hegyi Péter – *The Application of Bioelectric Impedance in Performance and Physiology Examinations* (in Hungarian), BME-OBMK, February 2009.

[f-10] Nagy Eszter – *Microbiological analysis of cleaning technology in the Hungarian pharmaceutical industry* (in Hungarian), BME-OBMK, February 2009.

[f-11] Pilissy Tamás –*Examining the effectiveness of rehabilitation methods based on physiological parameters of spinal cord injured patients* (in Hungarian), BME-OBMK, February 2009.

[f-12] Adél Makai – *Speech processing application for medical image processing devices* (in Hungarian), BME-OBMK, June 2007.

[f-13] Károly Horváth – *Software for predicting drivers' stress factor* (in Hungarian), BME-OBMK, February 2008.

[f-14] Viola Bóbán – *Steam sterilization checking with electronic methods complying the EU standards* (in Hungarian), BME-OBMK, June 2008.

[f-15] Attila Reiss – *Formal description language for runtime data* (in German), BME-IIT, January 2008.

[f-16] László Török – *PLC-hosted Web-based Thin Client Solution for Industrial Human Machine Interface*, BME-IIT, January 2008.

[f-17] Irma Buthi – *Development of monitoring software for analyzing total body fat and its complications in humans* (in Hungarian), BME-IIT, January 2008.

[f-18] Georgina Szabó– *The CATHLAB project*, BME-OBMK, February 2008.

[f-19] Emese Szádeczky Kardoss – *Development of monitoring software for analyzing total body fat and its complications in humans* (in Hungarian), BME-OBMK, January 2007.

[f-1] Elena Ruiz Canamero – *Development of monitoring software for analyzing total body fat and its complications in humans*, BME-TANOK, June 2006.

[f-2] Eshag Yousef Larbah – *Control of the Glucose-Insulin Interaction*, BME-TANOK, June 2006.

[f-3] Khaled R. Fajar Zabet – *Simulation software for Glucose-Insulin Regulation*, BME-TANOK, June 2006.

[f-4] Ahmed Mahmoud M. Alwodai – *Considerations on the control of the Three Tank System*, BME-TANOK, June 2006.

[f-5] Tibor Szabó– *Practical use of PACS systems in radiology* (in Hungarian), BME-OBMK, June 2006.

[f-6] Péter Nagy – *DNA analysis with bioinformatics methods* (in Hungarian), BME-OBMK, January 2006.

[f-7] György Szaniszló – *Software for analyzing objective and subjective hearing disorder* (in Hungarian), BME-OBMK, June 2005.

[f-8] Márton Császár Farkas – *Low power memories for biomedical application* (in Hungarian), BME-OBMK, June 2005.

[f-9] Zsolt Szeszler – *Software development to diagnose diabetes mellitus* (in Hungarian), BME-OBMK, January 2005.

[f-10] Piroska Simonné Sebestyén – *Validation of the mathematical model for glucose-insulin interaction* (in Hungarian), BME-OBMK, January 2005.

[f-11] Péter Nagy – *Level control in explosion-proof zone* (in Hungarian), BME-IIT, June 2004.

[f-12] Gokul Mani – *Analysis, Simulation and Estimation of Physiological Control Systems*, BME-TANOK, June 2004.

[f-13] Fadel M. Abdussalam Alashhab – *Control and Modeling of Continuous Flow Boiling System using DeltaV Software*, BME-TANOK, June 2004.

[f-14] Rammah M. Abohtyra – *Chemical Process Control and Modeling using DeltaV Software*, BME-TANOK, June 2004.

[f-15] Boglárka Vígh – *Medical Information System for Diagnosing Hearing Disorders at Children*, BME-„Politechnica" University of Timisoara, June 2004.

[f-16] Krisztina Papp – *Medical information system for diagnosing and monitoring diabetes mellitus in children*, BME-„Politechnica" University of Timisoara, June 2004.

g. Student conferences (as supervisor)

[g-1] András György– *Analysing a novel model of human blood glucose system at molecular levels* (in Hungarian), OTDK, I[st] prize, 10 April 2009.

[g-2] Tamás Ferenci – *Some questions regarding small-sample biostatistical analysis* (in Hungarian), Corvinus University Budapest, BME TDK, I[st] prize, 22 April 2009.

[g-3] András György– *Analysing a novel model of human blood glucose system at molecular levels* (in Hungarian), BME TDK, I[st] prize, 19 November 2008.

[g-4] Tamás Ferenci, Zoltán Olivér Merkei – *Statistical analysis of obesity and its risks in Hungarian children – an anthropometric approach* (in Hungarian), BME TDK, IInd prize, 19 November 2008.

[g-5] András György– *Digital image processing at the poker table* (in Hungarian), BME TDK, IInd prize, 19 November 2008.

[g-6] László Török, Attila Reiss – *Implementation of on-road monitoring system for measuring, storing and transmitting driver's physiological parameters*, (in Hungarian), BME TDK, mention 11 November 2006.

[g-7] László Török – *Study of the human glucose-insulin system* (in Hungarian), Budapest, I[st] prize, 11 November 2005.

[g-8] Papp Krisztina, Vígh Boglárka – *Medical information system for diagnosing and monitoring diabetes mellitus and hearing disorders in children* (in Hungarian), VIth National Scientific Student Conference in Engineering for Hungarian students, Timisoara, Romania, mention, 23-25 April 2004.

[g-9] Tamás Vajda – *Human detection with eigenface method. Determination of optimal eigenface space* (in Hungarian), V[th] National Scientific Student Conference in Engineering for Hungarian students, Timisoara, Romania, I[st] prize, 10-13 April 2003.

h. **Awards, prizes**

[h-1] George Gamow Competition and Fellowship, I[st] prize, 2005.
with the work: "*Study of distribution, frequency, patterns of human repeating sequences – "SeqRep" program*".
Authors: Péter Nagy, **Levente Kovács**, László Török.

[h-2] SRAIT (Romanian Society of Control Engineering and Technical Informatics) diploma (for best graduate student) June 2000.

[h-3] IInd National Scientific Student Conference in Engineering for Hungarian students from Romania, Timisoara, Romania, I[st] prize, 2000.
with the work: "*Control strategies for electrical driving systems with variable moment of inertia*" (in Hungarian) (34 p.).
Coordinator: Prof. dr. ing. Stefan Preitl (P.U.T).

[h-4] I[st] National Scientific Student Conference in Engineering for Hungarian students from Romania, Timisoara, Romania, IInd prize, 1999.
with the work: "*Trajectory interpolation for robot's movement using spline functions*" (in Hungarian) (9 p.).
Coordinator: Conf. dr. ing. Mirela Toth Taşcău (P.U.T).

[h-5] I[st] National Scientific Student Conference in Engineering for Hungarian students from Romania, Timisoara, Romania, mention, 1999.
with the work: "*The Boundary Element Method (BEM) in different kinds of practical engineer applications*" (in Hungarian) (6 p.).
Coordinator: Prof. dr. Adalbert Kovacs (P.U.T).

[h-6] Scientific Student Conference of the Politehnica University of Timiosara "Robot Mechanics" (in Romanian), Timisoara, Romania, IInd prize, 1997.
with the work: "*Trajectory interpolation for robot's movement*" (in Romanian) (34 p.).
Coordinator: Conf. dr. ing. Mirela Toth Taşcău (P.U.T).

i. PhD, MSc thesis

Levente Kovács – *New principles and adequate control methods for insulin dosage in case of diabetes*, PhD thesis, BME, 140 pages, November 2007.

Levente Kovács – *The Three Tank System. Case study* (in Romanian), Postgradual thesis, 49 p., Politehnica University of Timiosara, 49 pages, June 2001.

Levente Kovács – *Control strategies for electrical driving systems with variable moment of inertia* (in Romanian), MSc thesis, 58 p., Politehnica University of Timiosara, 58 pages, June 2000.

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Budapest, 30 August 2009.