

PERSONAL INFORMATION

Prof. Dr. habil. Róbert SZABOLCSI, Col/OF5(Res)



- 8 Népszínház Street, Budapest, 1081 Hungary.
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- Skype: szabolcsi_robert (HU)

Sex Male | Date of birth 09/11/1965 | Nationality Hungarian.

POSITION

Full Professor of Institute of Mechatronics and Vehicle Engineering.

WORK EXPERIENCE

2021 — ATPL(A) Post-Gradual Pilot Training program – Supervisor & Head of the Program

- Educations, research, development, innovation.
- Leadership

Business or sector Governmental.

15 May 2018 — 30 June 2019

MATLAB Coordinator of the Óbuda University

- Educations, research, development, innovation.
- MATLAB Mobile in University Curricula
- Cody CourseWork in University Curricula

Business or sector Governmental.

15 May 2017 — 25 August 2017

Continental ContiTech Mérnök Grand Prix 2017 – Team Leader

- Educations, research, development, innovation.
- UAV Design (Type: Angry Fox 05)
- Student Competition
- 'Special Award' provided for the 'Angry Fox 05' UAV.

Business or sector Industrial.

1 October 2015 — 31 August 2016

Head of Department

Óbuda University, 'Bánki Donát' Faculty of Mechanical and Safety Engineering, Institute of Mechatronics and Vehicle Engineering, Department of Mechatronics (www.uni-obuda.hu)

- Educations, research, development, innovation.
- Leadership
- Curriculum development in Mechatronics

Business or sector Governmental.

1 March 2015 —

Reserved Senior Officer (Colonel, OF5) of the Hungarian Air Force (HuAF)

1 June 2013 — 28 February 2015

Senior Officer (Colonel, OF5)

General Staff of the Hungarian Armed Forces.

• Military higher education, military training.

Business or sector Governmental.



24 June 2014 UAS Cluster Foundation

- Founder of the 'Unmanned Aerial System Cluster®'
- The cluster's registered trade mark owner;
- Education, research, development, innovation.

Business or sector Private

2013 - 2016

Go-Kart, Go-Bosch Student Competition – Team Leader

- Educations, research, development, innovation.
- Go-Kart design

Business or sector Industrial.

3 Sept 2012 — Full Professor

Óbuda University, 'Bánki Donát' Faculty of Mechanical and Safety Engineering, Institute of Mechatronics and Vehicle Engineering (www.uni-obuda.hu)

- Education, research, development, innovation.
- Bosch Go-kart Building Competition (Safety Kart Team, Leader and mentor) http://www.gokart.bosch.hu/fooldal/csapatok)
- Founder of the Unmanned Aerial System Cluster, Trade Mark owner.

Business or sector Governmental.

1 Jan 2012 – 31 May 2013

Full Professor

National University of Public Service (<u>www.uni-nke.hu</u>) Department of Military Aviation (<u>http://www.szrfk.hu/</u>)

- Military higher education, military training.
- Research, development, innovation.
- Founder and supervisor of the "Military Maintenance" BSc program.
- Founder and supervisor of the "Military Maintenance" MSc program.

Business or sector Governmental.

1 Sept 2009 – 31 Dec 2011

Full Professor

Zrínyi Miklós National Defense University

- Military higher education, military training
- Research, development, innovation
- Founder of the "Military Maintenance" BSc program
- Founder of the "Military Maintenance" MSc program

Business or sector Governmental.

2009

FESTO Robotino Olimpia. Student Competition – Team Leader

- Educations, research, development, innovation.
- Robotino View Programming

Business or sector Industrial.

2010

FESTO Robotino Olimpia. Student Competition – Team Leader

- Educations, research, development, innovation.
- Robotino View Programming

Business or sector Industrial.



1 July 2009 - 31 Jan 2011

Deputy Dean in Sciences and International Affairs

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty

- Research, development, innovation
- International relationships
- Management of human resources

Business or sector Governmental.

1 Sept 2009 - 31 Jan 2011

Director of the Institute

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Institute of Automation and Robotics

- Military Higher Education.
- Research, development, innovation.
- International relationships.
- Management of human resources.

Business or sector Governmental.

1 Sept 2009 — 31 Jan 2011

Head of Department

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Institute of Automation and Robotics, Department of Automation and Process Control

- Military Higher Education.
- Research, development, innovation.
- International relationships.
- Management of human resources.

Business or sector Governmental.

15 Aug 2008 - 30 Jun 2009

Deputy Dean in Education and Quality Assurance

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty

- Military Higher education.
- Quality assurance and quality management.
- Responsible leader for the Accreditation of the Faculty.
- Responsible leader for the faculty educational portfolio.

Business or sector Governmental.

15 Sept 2007 — 14 Aug 2008

Director of the Institute of Military, Mechanical and Safety Engineering

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Institute of Military, Mechanical and Safety Engineering

- Military Higher Education.
- Research, development, innovation.
- International relationships.
- Management of human resources.

Business or sector Governmental.

11 Dec 2005 — 21 Jun 2006

Mentor

NATO Training Mission Iraq (NTM-I), Joint Staff College (Re-established 2005)

- Military Higher Education.
- Research, development, innovation.
- Pilot Course mentor/supervisor/teacher.

Business or sector NATO



2001 - 2004

Deputy director in Education and Research of the Aviation Technical Institute

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Aviation Technical Institute

- Military Higher Education.
- Research, development, innovation.
- International relationships.
- Training of technical staff, pilot staff and ATC staff.
- Management of human resources.

Business or sector Governmental.

3 Nov 2001

Gaining Habilitation

from National Defense University (www.zmne.hu)

- Research, development, innovation.
- "Venia Legendi" in Military Sciences

Business or sector Governmental.

1998 - 2003

Head of Department

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Aviation Technical Institute, Department of Aircraft Onboard Systems.

- Military Higher Education.
- Research, development, innovation.
- International relationships.
- Training of technical staff, pilot staff and ATC staff.
- · Leader of the training in "Electrical Engineering"
- Founder of the vocational training program "Aircraft avionics".
- Responsible leader for the accreditation of the training programs.
- Responsible leader for the accreditation of the department.
- Management of human resources.

Business or sector Governmental.

1997 - 1998

Deputy Head of Department

Zrínyi Miklós National Defense University, Bolyai János Military Technical Faculty, Aviation Technical Institute, Department of Aircraft Onboard Systems.

- Military Higher Education.
- Research, development, innovation/Management of human resources.

Business or sector Governmental.

1998 - 2009

Associate Professor

Zrínyi Miklós National Defense University

- Military Higher Education.
- Research, development, innovation.

Business or sector Governmental.

3 July 1997

Gaining "PhD" Degree

Technical University of Budapest, Faculty of Transportation Engineering (www.bme.hu)/MTA SZTAKI

- Topic: Aircraft Design and Analysis
- Research, development, innovation.
- Supervisor: Prof. Dr. József Bokor, Academician.

Business or sector Governmental.



23 March 1996 Gaining "Dr. univ." Degree

Technical University of Budapest, , Faculty of Transportation Engineering (www.bme.hu)

- Research, development, innovation.
- Topic: Aircraft Design and Analysis
- Supervisor: Prof. Dr. habil. József Rohács

Business or sector Governmental.

1995 – 1998 Assistant Professor

College of Flight Officers, Szolnok (www.szrfk.hu)

- Military Higher Education.
- Research, development, innovation.

Business or sector Governmental.

1993 – 1995 Senior Lecturer

College of Flight Officers, Szolnok (www.szrfk.hu)

- Military Higher Education.
- Research, development, innovation.

Business or sector Governmental.

1989 – 1993 Lecturer

College of Flight Officers, Szolnok (www.szrfk.hu)

- Military Higher Education.
- Research, development, innovation.

Business or sector Governmental.

EDUCATION AND TRAINING

3 Jan 2010 – 16 Jan 2010 FESTO EP211 Module Training

Festo Didactic Ltd., Budapest, Hungary.

Industrial Electro-pneumatical systems
 (http://www.kekvilag.hu/didactic/letoltes/katalogus/Tanfolyamok 2008 2009.pdf)

10 Apr 2009 – 15 Apr 2009 Fanuc Training

Fanuc Robotics, Stuttgart, Germany.

• Educational system of Fanuc Robotics Ltd.

12 Jun 2009 – 15 Jun 2009 Fanuc Training

Fanuc Robotics, Budaörs, Hungary.

- Industrial robots.
- Programming of Roboguide.

10 Apr 2001 – 15 Oct 2001 Habilitation Procedure

National Defense University, Budapest, Hungary.

- Habilitation in "Military Sciences"



Curriculum Vitae

10 Sep 2000 - 15 Apr 2001

ECDL-Training (Professional)

National Defense University, Budapest, Hungary.

• 6-modul ECDL-training, examination, and certification.

1992 – 1997 Doctoral Sudies & PhD Training

Technical University of Budapest, Budapest, Hungary/Hungarian Academy of Sciences, Institute for Computer Science and Control

- 'Dr.univ' in Aircraft Design and Analysis (1996)
- PhD in Aircraft Design and Analysis (1997)

1984 – 1989 MSc Training

Kiev Military Aviation Engineering Academy (Kiev, Ukraine)

• MSc in Aircraft Avionics Maintenance

PERSONAL SKILLS

Mother tongue(s)

Hungarian.

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
C2	C2	C2	C2	C2

English

Russian

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user Common European Framework of Reference for Languages

Communication skills

- good communication skills gained through my experiences in higher education.
- good communication skills gained through my experiences in NATO Training Mission Iraq (NTM-I) Joint Staff College, Al Rustamiyah, Iraq.



Curriculum Vitae

Organisational / managerial skills

- Flexibility Creativity Mobility Sensitivity Team-builder
- Head of Department leadership (responsible for a team of 10 employees and student' plus cadets' staff of 60 persons)
- Deputy Director of Institute leadership (responsible for a team of 80 employees and student' plus cadets' staff of 120 persons)
- Deputy Dean Leadership (responsible for a team of 180 employees, and student' plus cadets' staff of cca 3500 persons).
- Founder of the vocational training program in 'Aircraft Avionics' (2002).
- Founder of the Doctoral School in Military Technology (2002).
- Founder of the BSc program of Military Maintenance BSc Course (2012).
- Founder of the BSc program of Military Maintenance MSc Course (2012).
- Unmanned Aerial System Cluster (UAS_C): Registered Trade Mark, 12 March 2014, Reg. No: 214215
- Project "TÁMOP 4.1.1.C-12/1/KONV", Study of about international relationship and students.
 Finance gained: 1.590.991.311 HUF, 2013-2015.
- Project "TÁMOP-4.2.1.B-11/2/KMR", Scientific supervisor. Finance gained: 989.531.511 HUF, 2012-2013.
- Project "TÁMOP-4.2.2.B-10/1", topic supervisor. Finance gained: 64.996.500 HUF, 2011-2013.
- Project "TGYDGL09", scientific supervisor (MZ NDU), 2010-2011.
- Research project of Pharmavalid Kft, Project leader. Finance gained: 169.000 HUF, 2010-2011.
- Research Project of the FESTO Ltd., Project leader. Finance gained: 1.100.000 HUF, 2009-2010.
- Research Project of the FESTO Ltd., Project leader. Finance gained: 700.000 HUF, 2009-2010.
- Euroskills/WordSkills, Lisbon, Portugal: Mobile Robotics Session, Deputy Chief Expert, 2010.
- Project "EA_KFI_07_permetez" Baross Gábor", Individual expert. Finance gained: 84.714.000 HUF, 2008-2010.
- Project of the UNITEF-83 Zrt, Project leader. Finance gained: 1.000.000 HUF, 2008.
- Project of the Szolnoki Cukorgyár Ltd., Project leader. Finance gained: 1.00.000 HUF, 2002.
- Project of the Westel PLC., Project leader. Finance gained: 800.000 HUF, 2002.
- Project of the Pannon GSM PLC., Project leader. Finance gained: 3.000.000 HUF, 2002.
- Project 'INFOESZKÖZ 2002', Ministry of Education, Project leader. Finance gained: 5.200.000 Ft, 2002.
- Project "AMFK", Project leader. Finance gained: 400.000 HUF, 1998.
- Project 'FEFA', project co-leader. Finance gained: 13.000.000 Ft, 1995.

Job-related skills

- membership in editorial/reviewers board of numerous international scientific journal;
- almost 30-year experience in scientific research;
- social responsibility for development of technical sciences.

Computer skills

- good command of Microsoft OfficeTM tools.
- ECDL Professional level certification.
- MATLAB programming (Control System Toolbox, Robust Control Toolbox, System Identification Toolbox, Signal Processing Toolbox, Aerospace Toolbox, Aerospace Blockset, Simulink, Model Predictive Control, Filter Design Toolbox etc.).
- Roboguide programming.

Other skills

- Marches and tours
 - DanCon March, 20 km, 10 kg gear, combat uniform: Decorated by Danish Armed Forces, Silver Medal Grade is gained after second participation. Iraq, Al Rustamiyah, April 2006 and June 2006.
 - $\ ^{\mbox{\tiny o}}$ St. Ladislaus March, 70 km, Individual, 20 kg gear, combat uniform, $3^{\mbox{\tiny rd}}$ place, 2007.
- Marcus Aurelius Marches, 2*40 km, 2007, 2008, 2009, Bruckneidorf, Austria.
- ¹ 100 Km 'Kinizsi March", 2008, 2009, 2011.
- Challenge of the 54th?: Surviver Tour in Bakony, 108 Km, 4th place.
- other marches, cca 60 events. Altitude gained more than 45.000 metres.

Driving licence

- A1, A2, B.

ADDITIONAL INFORMATION





Publications https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10000752

PhD training https://doktori.hu/index.php?menuid=192&lang=HU&sz_ID=6574

Presentations More than 150.

Projects 15 projects in volume of 3 Billions of HUF (Cca 10 Million EUR) (Scientific supervisor and manager,

team leader, member of the research teams)

Conferences More than 70 conferences, cca 15 invited conference plenary session presentations

Honours and awards Cca 50 (NATO Medal and NATO Coin of the Secretary General of NATO for Service in NTM-I Mission,

Iraq; Rectors' and Deans' awards; SAAB Foundations Awards; For The Hungarian Aviation Award (Sciences); 'Solder of the Year 2007', Industrial Awards (Robert Bosch Ltd., 2014, 2016)

Memberships IEEE, member; Society of American Institute for Aeronautics & Astronautics, member; Hungarian

Academy of Sciences (Technical Sciences, Board Member); Hungarian Academy of Sciences, Technical Board, Founder-member of the Aviation Technical Working Group; Society of Mechanical Engineering, member; Society of Military Sciences, founder-member; Society of Transportation

Engineering, member.

Control engineering;

Research Interest – Optimal systems design;

Robust control system design;

MPC Control Systems;

Nonlinear systems;

Computer aided design of control systems;

Automatic flight control systems (AFCS) computer aided design;

UAV/UAS conceptual and preliminary design;

UAV automatic flight control system design;

UAV emergency landing;

UAV flight safety & security;

UAV D3 missions conceptual and preliminary design;

Matlab Programming.

ANNEXES