

## Contact Information:

Géza Szayer

Phone: +36 30 398 7609

E-mail: [szayerg@gmail.com](mailto:szayerg@gmail.com), [geza.szayer@generalmechatronics.com](mailto:geza.szayer@generalmechatronics.com)

Web: <http://www.generalmechatronics.com>



## Education:

- 2001-2005: John von Neumann Faculty of Informatics High School, Budapest
- 2005-2008: Budapest University of Technology and Economics, Faculty of **Mechatronics Engineering BSc**, Integrated Engineering specialisation.
- 2009: Hogskolen i Narvik, Norway – one semester for final project
- 2009-2011: Budapest University of Technology and Economics, Faculty of **Mechatronics Engineering MSc**
- 2013: **PhD Student** at Budapest University of Technology and Economics, Department of Mechatronics, Optics and Engineering Informatics.

## Awards:

- 2006: **3<sup>rd</sup> prize on Student Scientific Conference** for designing and building a recumbent bike
- 2007: Designing and building an autonomous robot for Eurobot 2007 Open International robot competition:  
- **6<sup>th</sup> prize** on Mechatronics and Robotics exhibition in Russia  
- **2<sup>nd</sup> prize on Student Scientific Conference.**
- 2008: Designing and building an autonomous robot for Eurobot 2008 Open International robot competition:  
- **23<sup>rd</sup> prize** at Heidelberg, Germany where more than **400 teams** participated.  
- **2<sup>nd</sup> prize on Student Scientific Conference.**  
- **2<sup>nd</sup> prize on National Student Scientific Conference.**
- 2009: *Bence Kovács, Géza Szayer, Balázs Varga: 'Theory and practice of motion control in industrial robotics', October 2009, pp.44, 1<sup>st</sup> prize on Student Scientific Conference and Extra prize from the President of University.*
- 2010: **Bosch „Invented for Life”** technical competition: The scholarship of **Pro Progressio** Endowment for two semesters.
- 2011: *Bence Kovács, Géza Szayer, Balázs Varga: 'Theory and practice of motion control in industrial robotics', October 2011, pp.44, 1<sup>st</sup> prize on National Student Scientific Conference.*

## Technical experience and jobs:

- I started building robots in 2006 with one of my colleagues. We built autonomous robots for international robotic competitions till 2008.
- We started to work on industrial robot controls in 2008; we built several control units for used robots and CNC machines.
- I spent a semester in Narvik, Norway, where we worked with industrial/mobile robots, and telemanipulation.
- We developed a mobile robot for R&D, cooperation of three universities: Budapest University of Technology and Economics, Eötvös Loránd University and University of Miskolc.
- We developed a parallel motor diagnostic tool for Audi Hungária Kft.
- I have the knowledge of new electronic components in mechatronics, those suitable for modern, more integrated systems. We are regularly visiting the technical exhibitions in Hungary as well as abroad, in the field of robotics and electronics.
- I have a few self designed products released; the most important is a lap timer that can be bought in more European countries.
- I worked for Knorr-Bremse R&D Center Budapest as an embedded software engineer

**Software skills:**

**CAD:** AutoCAD, Solidworks, 3dsMax

**CAM:** SolidCAM, EdgeCAM

**Circuit design:** National Instruments Circuit Design Suite (Multisim & Ultiboard), Eagle, Protel

**Programming languages:** Pascal, Delphi, Basic, C, Simulink real-time workshop

**Simulation and measurement:** Matlab, LABview

**Microcontrollers:** Atmel, Microchip, Texas Instruments, Motorola

**Web-design:** Macromedia Flash/Dreamweaver, Photoshop, Corel Draw

**Publications:**

- Géza Szayer, Bence Kovács, Balázs Varga: “*Universal robot controller*”, Workshop on Cognitive and Eto Robotics in iSpace CERiS’10, 2010. March
- Géza Szayer, Bence Kovács, Balázs Varga: “*Etho-robot*”, Workshop on Cognitive and Eto Robotics in iSpace CERiS’10, 2010. March
- Géza Szayer, Bence Kovács, Balázs Varga, Péter Korondi: “*RT Middleware based robot controller*”, Mechanical Engineering 2010 Conference, 2010. May
- Bence Kovács, Géza Szayer, Ferenc Tajti, Péter Korondi, István Nagy: “*Robot with dog type behavior*”, 17th Int. Conference on Electrical Drives and Power Electronics The High Tatras, Slovakia 28–30 September, 2011
- Bence Kovács, Géza Szayer, Ferenc Tajti, Solvang Bjorn, Péter Korondi, “*Design of a universal robot controller*” In: International Engineering Symposium at Bánki, Budapest, Hungary, 2011.11.15. pp. 1-13.
- Kovács Bence, Szayer Géza, Tajti Ferenc, Devecseri Viktor, Korondi Péter, “*Szociális robotok a 21. században: MOGI Robi a hűségese társ*”, In: Erdélyi Magyar Műszaki Tudományos Társaság. Kolozsvár, Románia, 2012.04.19. Kolozsvár: pp. 238-241.
- Bence Kovács, Géza Szayer, Ferenc Tajti: “*Design of a universal robot controller*”, Mechanical Engineering 2012 Conference, pp. 249-262, Budapest 24-25 May, 2012

**Languages:** Hungarian (native), English

**Interests, Hobbies:** Motorcycling, cycling, repair, travelling abroad, exploring

**Birth:** 8<sup>th</sup> Mach 1987, Budapest, Hungary

**Driving licenses:** **A** (motorcycle), **B** (car)

Budapest, 29<sup>th</sup> September 2011

.....  
Géza Szayer