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Csaba Tóth-Nagy Ph.D.



EDUCATION

West Virginia University, Morgantown, WV
Doctor of Philosophy in Mechanical Engineering 2004
Dissertation: “*Linear engine development for series hybrid vehicles*”

West Virginia University, Morgantown, WV
Master of Sciences in Mechanical Engineering 2000
Thesis: “*Investigation and simulation of the planetary combination hybrid electric vehicle*”

Technical University of Budapest, Budapest, Hungary
Graduate school in Integrated Engineering 1998

Nottingham Trent University, Nottingham, UK
Bachelor of Sciences in Integrated Engineering 1996
Thesis: “*Selective compliance assembly robotic arm design*”

Technical College of Kecskemet, Kecskemet, Hungary
Bachelor of Sciences in Industrial Engineering 1993

RESEARCH EXPERIENCE

Széchenyi István University, Hungary, Győr, Hungary
Audi Hungaria Faculty of Automotive Engineering
Department of Propulsion Technology 2008-present
Department of Automotive and Railway Engineering, 2006-2007
Associate professor

Coordinated the grant application, simulation, development, prototype design, construction, and testing process of a homogeneously charged compression ignition engine realized through variable compression ratio. Has 5 patent applications pending. He is a registered legal expert in the Hungarian jurisdictional system in the field of internal combustion engines.

College of Kecskemét, Kecskemét, Hungary 2005- 2006
School of Engineering,
Department of Automation and Applied Informatics,
Assistant professor
Mechatronics, Image recognition in industrial applications.

West Virginia University, Morgantown, WV 2004-2005
Assistant professor
Conducted intellectual property enhancement on a NOx trap using Transmural Catalysis.

Deputy faculty advisor of Challenge X competition.

West Virginia University, Morgantown, WV 2000-2004

Graduate research assistant

Performed research on hybrid electric vehicle control, artificial neural network based emission simulation, on road vehicle testing, journey parameter prediction, prototype linear engine simulation, development, testing, and optimization, engine testing and characterizing, heavy-duty vehicle chassis dynamometer testing, development of SAE standard J2711, driving cycle development for heavy-duty vehicle chassis dynamometer testing, journey parameter prediction with artificial intelligence.

West Virginia University, Morgantown, WV 1999-2000

Graduate Chief of FutureTruck Team

Development of hybrid electric vehicles and hybrid vehicle control strategies. Planetary power split hybrid vehicle simulation and control strategy development.

TEACHING EXPERIENCE

Széchenyi István University, Hungary, Győr, Hungary

School of Engineering,

Department of Propulsion Technology

Department of Automotive and Railway Engineering,

Associate professor

Developed course material, home works, and tests. Gave lectures and seminars, home works and tests and exams. Graded students: Internal combustion engines, Alternative vehicles. Measurement of Internal Combustion Engines, Project management, Internal Combustion Engine Control, Hybrid Electric Vehicles

In a team, developed training programs in the Automotive Engineering field, both BSc and MSc.

2008-present

2006-2007

College of Kecskemét, Kecskemét, Hungary

School of Engineering,

Department of Automation and Applied Informatics,

Assistant professor

Hydraulic control in the industry. Developed course material.

Home works and assignments were both calculus based as well as computer simulation based. Gave lectures, seminars, and graded students at the end of semester.

Pneumatic control in the industry. Developed course material.

Home works and assignments were both calculus based as well as computer simulation based. Gave lectures, seminars, and graded students at the end of semester.

2005- 2006

West Virginia University, Morgantown, WV

Assistant professor

Faculty co-advisor of the Challenge X student competition team:

2004-2005

Co-advised about 20 students converting a 2005 Chevrolet Equinox into a hybrid electric vehicle. Developed course material in hybrid electric vehicle design. Developed lectures and tests in the fields of teamwork, leadership, engines, power electronics, hybrid vehicle control strategies, and report writing. Graded students.

Automatic control: Developed course material. Home works and assignments were both calculus based as well as computer simulation based. Gave lectures, seminars, and graded students at the end of semester.

Statics: Developed course material, home works, and tests. Gave lectures and seminars, home works and tests. Graded students.

Mechanics of materials: Developed course material, home works, and tests. Gave lectures and seminars, home works and tests. Graded students.

West Virginia University, Morgantown, WV

2003-2004

Graduate teaching assistant

Internal combustion engines: Gave lectures, graded home works and tests.

Mobile power plants: Gave lectures, graded home works and tests.

Technical College of Kecskemet, Kecskemet, Hungary

1992-1993

Undergraduate teaching assistant

Machine Design and Manufacturing: Taught operation of milling machines and lathe machines, welding, material testing methods, and CNC programming.

HONORS

“Inventor nivou” awarded in 2011 at Szechenyi Istvan University.

ACTIVITIES

Serves on the faulty board,
Heads of the vehicle engineering BSc program at SZE,
Serves as the secretary of the Internal Combustion Engine subcommittee of the Hungarian Academy of Science,
Member of Society of Automotive Engineering
Forensic expert of the Hungarian Ministry of Justice

LANGUAGES

Hungarian (native), English (advanced/second native), German (intermediate), French (basic, quickly fading).

INTERESTS

Faith, leadership development, horses, writing, investing

PUBLICATIONS

<https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=authors10022034>