Curriculum Vitae

Personal data:

Name: Pavel Deutsch

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Education:

2003 – 2008 Czech Technical University in Prague – Faculty of Electrical Engineering
- PhD study - Department of Control Engineering
- topic of dissertation: Model and Control of Linear Combustion Engine for Hybrid applications (details at www.lceproject.org/en)

1997 – 2003 Czech Technical University in Prague – Faculty of Electrical Engineering
Department of Cybernetics and Measurement
- specialization: Control engineering
- diploma thesis: Control of production system

Work experiences:

Sep 2011 – now **Tata Motors European Technical Centre**

I have joined TMETC as a principal control engineer for thermal control team, which is part of the Vehicle Integration Group. Thermal control team is responsible for cabin comfort control systems as well as for control systems governing powertrain cooling systems on various advanced engineering projects.
As part of the responsibility for Climate control system on new vehicles product range, my team has developed in-house control strategy for FATC system in Matlab/Simulink. I was leading the control system implementation on prototype vehicle, environmental tests in Climatic Wind Tunnel, and system calibration during cold & hot environmental test trips. Currently, I am leading an introduction of developed FATC control system on new Tata vehicle platform - 17MY.
In parallel with FATC development, I have been working on EV/hybrid vehicles - 2 years ago on Tata VistaEV and most recently on Tata Manza REEV. Specifically, I have been responsible for powertrain cooling control system development from concept design to tests sign offs.
Above mentioned tasks involved writing of project proposals, requirement specifications, developing test plans, implementing/reviewing code in Matlab/Simulink - including unit tests, vehicle commissioning and finally control system's testing and calibration on prototype vehicles.

Sep 2008 – Aug 2011 LandRover

Whilst working in J&LR as a contractor, I have accepted LandRover's offer to become Stop/Start system technical leader. As part of this role, I was supervising further development of Stop/Start system including embedding of TargetLink library, supporting development of functional safety analysis to comply with ISO26262, reviewing system DFMEA and performing other tasks to roll out control system onto production vehicles.
After introducing Stop/Start system to production programmes, I gradually become part of VSC (Vehicle Supervisory Controller) development team. Next to being responsible for specific parts of VSC development for production vehicles, I acted as VSC technical lead for advance engineering projects like Range_e. Last couple of months, before I left the company, I become PMST leader responsible for delivery of VSC for Plug-in hybrid production programme.
When I was working for LandRover, I have also successfully finished my PhD in control engineering.

Oct 2007 – Sep 2008 AVL UK, Ltd.

In October 2007 I was hired by AVL to be contracted in J&LR advanced engineering department. My main task was to develop use-cases for Stop/Start system and later to develop Stop/Start control strategy (in Matlab/Simulink) for dSPACE rapid prototyping ECU (MicroAutoBox) including debugging and testing on prototype vehicle.

Sep 2004 – Sep 2007 Ricardo Ltd. (Prague office)

I started in Ricardo as a PhD student with extensive Matlab/Simulink and dSPACE tools experiences and sound knowledge of internal combustion engines. My first tasks included diesel engine modeling, parameterization and validation. Next tasks brought me to the control development for various engine sub-systems. Working on these tasks made me an expert on development tools like Matlab/Simulink (including StateFlow, RealTime Workshop and Embedded Coder) and also made me fluent with ETAS tools like Ascet or Inca. In parallel with described tasks, I gained sound knowledge in modular dSPACE systems, when I was part of a team setting up HiL systems in various Ricardo locations.

Leadership experiences:

- 3 years of experiences as a PMST & technical leader of Stop/Start and VSC control systems in J&LR Hybrid CoC (my team had up to 3 engineers).
- Last 2.5 years acting as a technical specialist / team leader for senior and junior engineers.

Personal development experiences:

- Experienced in control team development - recruitment, technical guidance, mentoring, etc.
- Annual appraisals for senior and junior engineers
- Supervision of several students on successful bachelor & master projects during my PhD study

Technical skills and competencies

J&LR tools:

Trained and experienced with: AIMS, eTracker, eFDVS

Software tools:

Microsoft: Word, Excel, PowerPoint, Visio, Project
MathWorks (Matlab, Simulink, StateFlow, RealTime Workshop, Embedded Coder)
dSPACE (ControlDesk, TargetLink)
ETAS (Inca, Ascet SD v4.2, Ascet MD-RP-SE v5.1)
Vector (CANalyzer, CANape)
IPETRONIK (IPEmotion)

Hardware system and tools:

HiL systems, diagnostic/data acquisition tools:

dSPACE systems: MicroAutoBox, DS1005, DS1006, DS2210, DS2211
ETAS systems: ES1000, ES690
Woodward systems: MotoHawk (rapid prototyping ECU - MPC5554)
Vector CAN box
IPETRONIK data acquisition tools (M-SENS, M-THERMO, FLEETlog)

Languages:

Czech
English

Driving license:

EU driving license for cars and motorcycles

Publication:

Magazines publications:

Deutsch P., Vysoký O., The free-piston engine model in Matlab/Simulink. MECCA Journal of Middle European Construction and Design of Cars. 2007, vol. 5, no. 2, p. 30-37. ISBN 1214-0821.

Conferences publications:

Deutsch, P., Harris, A. "*Thermodynamic model of electric vehicle A/C system with single evaporator.*" In Proceedings of the Vehicle Thermal Management Systems Conference. Coventry TechnoCentre, May 2013, ISBN 978-085709-4728

McGeoch, D.J., Deutsch, P. "*Control of automated Engine Stop/Start for vehicles with an Automatic Transmission.*" In Proceedings of the UKACC International Conference on CONTROL [CD-ROM]. Coventry, 2010, ISBN 978-184600-0386

Deutsch, P. "*Fault Tolerant Control System for Linear Combustion Engine.*" In Proceedings of the 34th Annual Conference of the IEEE Industrial Electronics Society [CD-ROM]. Piscataway: IEEE, 2008, ISBN 978-1-4244-1766-7

Deutsch, P. - Vysoký, O. "*In-cycle Thermodynamic Model of Linear Combustion Engine.*" In Proceedings of the 2006 IEEE, International Conference on Control Application [CD-ROM]. Piscataway: IEEE, 2006, p. 2430-2435. ISBN 0-7803-9796-7.

Deutsch, P. - Vysoký, O. "*Model of Engine's Combustion Part.*" In Proceedings of the 15th International Conference on Process Control 05 [CD-ROM]. Bratislava: Slovak University of Technology, 2005, ISBN 80-227-2235-9.

Deutsch, P. - Vysoký, O. "*Possibilities of Linear Combustion Engine Control.*" In Proceedings of the 6th International Scientific-Technical Conference on Process Control. Pardubice: University of Pardubice, 2004, p. 267. ISBN 80-7194-662-1.

References:

I will provide references on request