Curriculum vitae

Personal Information

FIRST NAME / SURNAME	Vlad Ioan Totu
ADDRESS	Stratford-Upon-Avon, CV 37 6GP
TEL	0747 0244869
EMAIL	totu.vlad@gmail.com

NATIONALITY	Romanian
DATE OF BIRTH	25.08.1986
GENDER	Male

WORK EXPERIENCE

DATES	January 2019 – present
POSITION	Design and Simulation Engineer
RESPONSIBILITIES	One of the main activities in my current role is to gather track and rig data, analyze it, for different types of transmissions, and torsional dampers and make design choices based on the results. The core activity is to develop new linear and time domain models using MATLAB, Simulink and Simscape and correlate the models with the test data.
EMPLOYER	RAICAM
TYPE OF BUSINESS	Tier 1 (brakes, clutches and actuators for the automotive industry)

DATES	March 2015 – January 2019
POSITION	Axle Performance Engineer
RESPONSIBILITIES	Study of the suspension systems using Simpack. The core activities at JLR was to analyze different types of front and rear suspension systems, and by tuning the bushes, hard points or the flexible parts themselves to achieve the ideal suspension system for a given model.
EMPLOYER	Jaguar Land Rover UK
TYPE OF BUSINESS	Car manufacturing

DATES	October 2011 - November 2014
POSITION	Phd Studies and teaching position
RESPONSIBILITIES	Research and study in Mechanical Engineering for the PhD thesis, as well as teaching 2nd and 4th year students. During my PhD I was teaching MCS ADAMS (View) and Catia V5 (Part design, drafting, assembly shape and FEM). The core activities were to help the students to create a given suspension system using CATIA and tune that system (cinematic and dynamic) using MCS ADAMS.
EMPLOYER	“Transilvania” University of Brasov
TYPE OF BUSINESS	University

DATES	June 2003 – December 2016
POSITION	Mechanical Design Engineer
RESPONSIBILITIES	Product design (SolidWorks, Catia, Edgecam, AutoCad), The main activity that I did in this workplace was to create drafts after given parts using Autocad or, if the parts were missing, creating the 3D design of the part and creating the draft after the 3D design using SolidWorks. Usually after the drafting was approved I was creating the CNC code for manufacturing the part on a FANUC milling machine and a SIEMENS turning machine. One of my responsibilities after writing the CNC program was to check the tolerances and to oversee the production.
EMPLOYER	SC CTIB SA Brasov
TYPE OF BUSINESS	Micro-production facility for prototyping, working closely with the University

DATES	5.05.2019 - present
QUALIFICATION AWARDED	Post PhD studies
PRINCIPAL STUDIES	Suspension systems kinematic properties
INSTITUTION	“Transilvania” University of Brasov, Romania

DATES	06.11.2017-07.11.2017
QUALIFICATION AWARDED	MATLAB Fundamentals for Automotive Applications
PRINCIPAL STUDIES	MATLAB Fundamentals
INSTITUTION	MathWorks Training Services

DATES	20.03.2017-25.03.2017
QUALIFICATION AWARDED	Vehicle Dynamics I Module
PRINCIPAL STUDIES	Ride and Handling
INSTITUTION	Coventry University

DATES	04.10.2016-06.10.2016
QUALIFICATION AWARDED	Abaqus introduction
PRINCIPAL STUDIES	Introduction in Abaqus
INSTITUTION	Dasoult systems

DATES	16.12.2015-17.12.2015
QUALIFICATION AWARDED	Yellow Belt
PRINCIPAL STUDIES	Six sigma
INSTITUTION	Capella

DATES	2011 - 2014
QUALIFICATION AWARDED	Doctor of Philosophy PhD thesis: “Analysis and optimization of the suspension mechanisms for race cars”
PRINCIPAL STUDIES	Mechanical Engineering
INSTITUTION	“Transilvania” University of Brasov, Romania

DATES	2009 - 2011
QUALIFICATION AWARDED	Master's Degree
PRINCIPAL STUDIES	Product Design for Sustainable Development and Environment Protection
INSTITUTION	"Transilvania" University of Brasov, Romania

DATES	2005 - 2009
QUALIFICATION AWARDED	Bachelor's Degree
PRINCIPAL STUDIES	Industrial Engineering
INSTITUTION	"Transilvania" University of Brasov, Romania

DATES	2001 - 2005
QUALIFICATION AWARDED	Baccalaureate Degree
PRINCIPAL STUDIES	Technology
INSTITUTION	"Iosif Silimon" Technical College of Brasov

SKILLS AND COMPETENCES

LANGUAGE SPOKEN	Romanian
OTHER LANGUAGE(S)	English, German

SOCIAL SKILLS AND COMPETENCES	Good team player, leader by example and skilled communicator High respect for quality and for deadlines. Organized and meticulous
ORGANIZATIONAL SKILLS AND COMPETENCES	Part of the Formula Student team of the "Tranislvania University" of Brasov from 2009 to 2013, team leader in 2011 – best teamwork award at Formula Student Spain -

DATES	20.12.2005
EVENT	Football charity event "Toti pentru unul"
RESPONSABILITIES	Organizer

DATES	04.06.2006
EVENT	Cycling race event "Memorialul Ion Cosma"
RESPONSABILITIES	Organizer

COMPUTER SKILLS AND COMPETENCES	3D CAD Modeling and simulation software: CATIA V5 Solid Works AutoCAD MSC/MD ADAMS Simpack MATLAB/Simscape/Simulink Abaqus

ADDITIONAL INFORMATION

PATENTS:

1) Alexandru, C., Țoțu, V. ***Method for the multi-criteria optimization of car wheel suspension mechanisms.*** Ingeniería e Investigación, vol. 36, nr. 2, 2016, p. 60-67, ISSN 0120-5609, DOI 10.15446/ing.investig.v36n2.52517, Accession Number WOS:000385596700009 (FI = 0.455).

2) Țoțu, V., Alexandru, C. ***Multi-criteria kinematic optimization of a front multi-link suspension mechanism using DOE screening and regression model.*** Applied Mechanics and Materials, vol. 332, 2013, p. 351-356, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.332.351, Accession Number WOS:000345269700051.

ARTICLES:

1) Țoțu, V., Alexandru, C. ***Kinematic optimization of the front suspension system for a formula student car.*** Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, vol. 5 (54), nr. 1, 2012, p. 51-56, ISSN 2065-2119.

2) Țoțu, V., Alexandru, C. ***Multi-objective optimization of the rear guiding linkage of a formula student race car***. Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, vol. 5 (54), nr. 2, 2012, p. 53-58, ISSN 2065-2119.

3) Țoțu, V., Alexandru, C. ***Study concerning the effect of the bushings' deformability on the static behavior of the rear axle guiding linkages***. Biomechanics, Neurorehabilitation, Mechanical Engineering, Manufacturing Systems, Robotics and Aerospace. Applied Mechanics and Materials, vol. 245 (2013), p. 132-137, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.245.132.

4) Țoțu, V., Alexandru, C. ***Dynamic analysis of a multi-link suspension mechanism with compliant joints***. Bulletin of the Transilvania University of Brașov - Series I, vol. 6 (55), nr. 1, 2013, p. 33-38, ISSN 2065-2119.

5) Țoțu, V., Alexandru, C. ***Optimal design of the front suspension mechanism used for a race car.*** Mechanisms and Machine Science, vol. 18, 2014, p. 243-253, ISBN 978-3-319-01844-7, DOI 10.1007/978-3-319-01845-4_25.

6) Țoțu, V., Alexandru, C. ***Dynamic simulation of a motor vehicle in virtual prototyping environment.*** Applied Mechanics and Materials, vol. 555, 2014, p. 369-374, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.555.369.

7) Țoțu, V., Alexandru, C***. Dynamic optimization of a single-seater car suspension system.*** Applied Mechanics and Materials, vol. 658, 2014, p. 147-152, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.658.147.

8) Țoțu, V. ***A comparative analysis between the rigid and compliant joint models for the guiding system of the cars axles.*** Annals of the Oradea University, Fascicle of Management and Technological Engineering, vol. XIII (XXIII), nr. 1, 2014, p. 131-134, ISSN 1583-0691.

9) Prof. Dr. Ing. Diaconescu Dorin, Prof Dr.ING. Neagoe Mircea, Prof. Dr. Ing. Jaliu Codruta, S.l.Dr.Ing Saulescu Radu, Totu Vlad, - ***„Transmisie cicloidala cu role"*** Brevet de invenție RO125177

10) Țoțu, V., Alexandru, C. ***Mecanism de suspensie pentru autovehicule ușoare și monoposturi***. Propunere de brevet nr. A 00978/11.12.2014.