

## Contents

<b>1</b>	<b>Optimization of B-Spline parameterized Trajectories for On-Road Vehicle Guidance .....</b>	<b>7</b>
	P. Dorpmüller <sup>1</sup> , M. Keller <sup>2</sup> , T. Bertram <sup>1</sup>	
	<sup>1</sup> Technische Universität Dortmund, <sup>2</sup> ZF Group, Gelsenkirchen	
<b>2</b>	<b>Application-Dependent Support of ITS-G5 Car-to-Car Communication by Selected Usage of LTE-V2X Resources .....</b>	<b>13</b>
	J. Stellwagen <sup>1</sup> , M. Deegener <sup>1</sup> , M. Kuhn <sup>2</sup>	
	<sup>1</sup> Frankfurt University of Applied Sciences; <sup>2</sup> Darmstadt University of Applied Sciences	
<b>3</b>	<b>Investigation on the Suitability of Power Line Communication for Redundancy Data Transmission for Automated Driving Functions .....</b>	<b>19</b>
	S. Jaschke, M. Olbrich, M. Kleinen, J. Bärenfänger, EMC Test NRW GmbH, Dortmund	
<b>4</b>	<b>New Magnetic Sensor Technology for Modern Speed Sensing Application of Rotating Shafts .....</b>	<b>24</b>
	S. Hainz, E. de la Torre, J. Güttinger, Infineon Technologies Austria AG, Villach, Austria	
<b>5</b>	<b>A Model Based Test Environment for the Analysis of the System's Behavior during Power Supply Faults .....</b>	<b>28</b>
	M. Rübartsch, M. Gerten, S. Frei, Technical University of Dortmund	
<b>6</b>	<b>Simplifying Automotive High-Performance Computer Development by Using a Pre-integrated Software Platform.....</b>	<b>34</b>
	S. Ohl, Elektrobit Automotive GmbH, Erlangen	
<b>7</b>	<b>Towards a Standardized Format for Automotive Mission Profiles .....</b>	<b>39</b>
	C. Sohrmann <sup>1</sup> , R. Fischbach <sup>2</sup> , A. Krinke <sup>2</sup> , T. Nirmaier <sup>3</sup> , V. M. zu Bexten <sup>3</sup> , G. Jerke <sup>4</sup> , J. Novacek <sup>5</sup>	
	<sup>1</sup> Fraunhofer IIS/EAS, Dresden; <sup>2</sup> TU Dresden; <sup>3</sup> Infineon Technologies AG, Neubiberg;	
	<sup>4</sup> Robert Bosch GmbH, Reutlingen; <sup>5</sup> FZI Forschungszentrum Informatik, Karlsruhe	
<b>8</b>	<b>Efficient utilization of vector DSP architectures for upcoming automotive applications trends .....</b>	<b>45</b>
	K. Walluszik, M. Hassan, J. Schäfer, Infineon Technologies, Neubiberg	
<b>9</b>	<b>Active Cancellation of the Electromagnetic Emissions at the Input of a Periodically Operating Motor Inverter by Injecting Synthesized and Synchronized Signals .....</b>	<b>51</b>
	M. Gerten, A. Bendicks, S. Frei, Technical University of Dortmund	
<b>10</b>	<b>Side-Slip Angle Estimation by Artificial Neural Networks for Vehicle Dynamics Control Application .....</b>	<b>57</b>
	P. M. Sieberg, S. Blume, D. Schramm, University of Duisburg-Essen, Duisburg	

- 11 Reduction of System Development Time with Early Sensor Prototyping and Measurement-Based Simulations..... 63**  
S. Hainz, J. Güttinger, S. Fontanesi, M. de Ruvo, Infineon Technologies Austria AG, Villach, Austria
- 12 A novel approach for fast assessment of energy efficient powertrain configurations in electric vehicles ..... 68**  
S. Yuan, V. Müller, W. Hofmann, Technical University of Dresden
- 13 Real-Time Capable and Modular Modeling of Wheel Suspensions using Neural Networks ..... 74**  
F. E. Kracht, J. Seeger, D. Schramm, University of Duisburg-Essen, Duisburg