CARR ENGINEERING, INC.

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TELEPHONE   281-894-8955

Eldon G. Leaphart

o Bachelor of Science – Electrical Engineering, The Ohio State University (1987)
o Master of Science – Electrical Engineering; Control Systems, The Ohio State University (1991)

Specialized Professional Competencies

o Specification, design, test, and evaluation of electro-mechanical control systems for motor vehicles, including powertrain, safety, steering, handling, and braking systems
o Specification, design, test, and evaluation of embedded software for motor vehicles, including sensor processing, diagnostic and failsafe implementation, serial communications, and control algorithms
o Design and implementation of automotive functional safety processes and software design consistent with ISO-26262 (Functional Safety for Road Vehicle Standard)
o Development of software requirements management, software architecture specification, model-based software design, and ASPICE (Automotive Software Process Improvement Capability dEtermination)

Professional Experience and Qualifications

o Product Engineer, Controlled Suspensions, Delco Products (1987 – 1989)
o Graduate Student (GM Fellowship) College of Engineering, The Ohio State University (1989 – 1991)
o Algorithm Engineer, Chassis/Suspension Integration, Chassis Systems Center (1991 – 1993)
o Application Engineer, Stability Control, Delphi Energy & Chassis (1993 – 2000)
o Algorithm Engineer, Stability Control Sensors, Delphi Energy & Chassis (2000 – 2003)
o Brake Controls Software Architect, Delphi Energy & Chassis (2003 – 2004)
o Engineering Manager, Diagnostics and Serial Communications, Delphi Chassis (2004 – 2008)
o Engineering Manager, Software and Systems Group, Delphi Chassis / BWI (2008 – 2016)
o Principal Engineer, Carr Engineering, Inc. (2016 – Present)

Publications and Achievements

o Master's Thesis: A DSP Hybrid Simulator For Evaluating Anti-Lock Brake System Control Designs, The Ohio State University (1991)
o Technical Publication: Survey of Software Failsafe Techniques for Safety Critical Automotive Applications, SAE International (2005)
o Technical Publication: Application of Robust Engineering Methods to Improve ECU Software Testing, SAE International (2006)
o Technical Presentation: Evolving OEM / Supplier Relationships Relative to System Design Satisfying ISO-26262, Car Training Institute (2012)
o Technical Presentation: Application of ISO-26262 "Confidence In Use Criteria" Toward ECU Software Development Tool Workflow, dSPACE Technical Conference (2013)
o Technical Presentation: The Next Frontier: Investigating The Alleged Vehicle "Software" Failure Claim, ABA Emerging Issues In Motor Vehicle Product Liability Litigation (2016)
o Technical Presentation: ISO 26262 Part 8: Supporting Processes, IQPC USA ISO 26262 Conference, (2017)
o Instructor SAE Course C1704: ADAS Application – Automatic Emergency Braking (2017)
o Recipient of seven US Patent Awards
o Recipient of GM President's Council Award: Automotive Chassis Control (1996)
o Recipient of two GM Boss Kettering Awards: Automotive Chassis Control – Integrated Chassis (1996) and Unified Brake and Suspension Control, Suspension & Steering (2000)

Technical Committees / Industry Affiliations

o SAE International – Member
o US Technical Advisory Group to ISO TC22/SC3/WG16 Functional Safety Committee
o INCOSE (International Counsel on System Engineering)