Exponent®
Engineering & Scientific Consulting

Sean Scally

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Professional Profile

Mr. Scally's interests encompass the areas of advanced driver assistance systems (ADAS), automated vehicles, vehicle dynamics, simulation, and crashworthiness. His education and professional background cover a range of vehicle engineering topics associated with emerging technologies in passenger and commercial vehicles including testing and evaluating ADAS systems and how drivers interact with them.

At Exponent, Mr. Scally has investigated and evaluated the design and performance of various ADAS features and enabling technology for passenger cars and commercial trucks, particularly in failure-to-equip and failure-to-perform product liability cases. He has accurately modelled the penetration of ADAS features and contextualized their deployment alongside the various regulatory developments in this space over time. Mr. Scally has experience managing and providing technical direction on ADAS projects and has been pivotally involved in the design of bespoke tests, evaluating the performance of ADAS features in unique and challenging scenarios.

Prior to joining Exponent, Mr. Scally was involved in ADAS research and development with two automotive original equipment manufacturers (OEMs). While completing his M.Sc., he worked in partnership with Volvo Group Trucks Technology in Gothenburg, Sweden. His work explored the topic of driver behavior while operating commercial vehicles equipped with Forward Collision Warning (FCW) systems. Mr. Scally evaluated driver monitoring techniques for the purpose of balancing FCW performance and driver acceptance in selected use-case scenarios. Mr. Scally also worked for a year with Nissan Motor Company Ltd. in the UK. In his capacity as an industrial placement student with the chassis department, he collaborated on a number of different projects involving new ADAS technology on two European models. His involvement included vehicle level testing design, data collection, analysis, and troubleshooting.

Mr. Scally holds a M.Sc. in Mechanical Engineering from Delft University of Technology in the Netherlands. For his M.Sc. he defended a thesis entitled "Non-intrusive driver monitoring for the purpose of reducing unnecessary and nuisance alarms in heavy goods vehicles (HGV) during lead vehicle turn-off." Mr. Scally also holds a B.E. in Energy Systems Engineering from National University of Ireland, Galway. In the final year of his bachelor studies he participated in the Shell Eco Marathon Europe, an annual event in which university teams compete to make the most energy efficient vehicle. As a section leader on the team, Mr. Scally was responsible for design and build of the vehicles ultra-light weight composite shell. The 'Geec' (Galway Energy Efficient Car) is the first and only Irish team in this global competition and holds the title of the most energy-efficient car ever built in Ireland.

Academic Credentials & Professional Honors

M.Sc., Mechanical Engineering, Delft University of Technology, Netherlands, 2019

B.E., Energy Systems Engineering, National University of Ireland Galway, 2016

Prior Experience

Student Researcher, Volvo Group Trucks Technology, Feb 2019–Jul 2019

Undergraduate Engineer, Nissan Motor Corporation, 2017–2018

Intern Engineer, ESB Networks, Apr 2015–Aug 2015

Professional Affiliations

American Society of Mechanical Engineers (ASME)

Society of Automotive Engineers (SAE)

Publications

Other Articles

Scully ID, Scally S, Clark R, Carey MR, Cades DM, Harrington R. Safety and Regulatory Considerations of Advanced Driver Assistance Systems (ADAS). Article in American Bar Association Tort Trial and Insurance Practice Section's Committee News; Fall 2020.

Additional Education & Training

Kepner Tragoe Problem Solving & Decision Making, April 2018

ATHENS programme on Computational Mechanics for Crashworthiness, TU Munich, March 2017