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### Prioritizing sensor performance characteristics for automotive seat weight sensors in quality function deployment (QFD)

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Quality function deployment (QFD), a key tool to convert the customer needs into product fea-tures, is generally integrated into the new product development (NPD) process at the design stage. Prioritizing customer needs in a QFD process leads to using the resources (time, money and staffing) effectively by eliminating the unimportant customer needs. The overall goal of the research was to develop a textile-based optical fiber sensor for automotive seat occupancy. The findings of this paper were focused on the design of experiments in our previous publication. In this paper, a research study was conducted to better understand market demands in terms of sen-sor performance characteristics for automotive seat weight sensors, as a part of the QFD House of Quality (HOQ) analysis. A survey was sent to more than 20 companies operating in the field of automotive seat weight sensors and original equipment manufacturers (OEM) via e-mail. Only 5 companies participated in this study due to competitive concerns and confidentiality reasons. However, the companies responded to the survey were of quality relevant to the research and could be perceived as representative of the group of experts. All 5 companies participated in the survey agreed on the first 5 most important sensor characteristics: Reproducibility, accuracy, se-lectivity, aging and resolution; where the Analytic Hierarchy Process (AHP) was applied to pri-oritize the sensor characteristics.

### Biography

Derya Haroglu has completed her PhD in December 2014 from North Carolina State University. She is an Assistant Professor in the Department of Industrial Design Engineering at Erciyes Uni-versity, Turkey.

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**Notes:**

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