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Subject: Letter of Motivation – PhD in Inclusive Co-Design Methodology for Accessibility

Dear Selection Committee,

I am writing this letter to express my motivation for the position of **PhD in Inclusive Co-Design Methodology for Accessibility** in the Faculty of Industrial Design Engineering, TU Delft. The fundamental drive for pursuing research in Co-Design Methodology is based on how deeply the vision of research resonates with me. Growing up as a dyslexic, I intimately understand the barriers created when educational and social infrastructures are not co-developed with consideration for diverse human experiences. As a researcher, this personal history serves as my source of empathy and research interest in converting unspoken, hidden pain into insightful research and an impactful framework.

My further motivation is based on how this human-centric research can take advantage of my interdisciplinary exposure. My qualifications have uniquely prepared me to tackle the transdisciplinary nature of this project. My MSc in Product Development (Chalmers University of Technology) provided a strong foundation in frameworks of Design Thinking, Inventive Problem Solving (TRIZ), and Product Development Management. In my master's thesis, I conducted qualitative research exploring the themes of design robustness, uncertainties, and design margins. Building on these insights, I developed a computational framework for robust design optimization. As a continuation of this work, I am currently collaborating with Chalmers IMS and GKN Aerospace to co-author two journal papers. Through my projects in collaboration with Semcon, Volvo Cars, and GKN Aerospace, I have experienced the value of collaboration across technical and human domains.^[Exp]

During the sabbatical, my self-directed study in psychology, philosophy, and human-centric design (30+ certifications) has cultivated a unique combination of competencies. I also had passion projects regarding conceptual development of tactile learning frameworks for children (to develop intuition in chemistry) and digital inclusion of the elderly on an e-commerce platform. I believe these pursuits made me more insightful, shaping me into an interdisciplinary generalist, capable of analyzing situations from multiple perspectives. I find this combination of expertise as a desirable temperament for a collaborator in holistic development.^[Portfolio]

I have industrial experience in CAD, CAE, and CAM, which has shaped me into a designer who understands parameter constraints across different domains. My academic journey revealed a strength in addressing open-ended questions in product development. Over time, I have come to realize that my impact can be greater if I direct this temperament toward developing the methodology of product development itself, rather than confining it to a specific product.^[LoR]

My research philosophy centers on three principles: (1) testing the robustness of methods by identifying where they may fail, (2) scrutinizing existing methodologies to uncover hidden assumptions, and (3) maintaining ethical sensitivity when engaging with communities. These principles naturally complement TACIT's aim to develop inclusive, participatory methodologies for AI and XR technologies.^[Research Philosophy]

I find this PhD not merely as an academic pursuit but as a continuation of a personal journey. I aspire to work in an environment surrounded by people who share similar values and vision. From my research about the team at TU Delft, I understand it fosters a highly supportive atmosphere. I view it as a place where I could thrive and find deeper fulfillment.

Thank you for your time and consideration. I have attached my full profile for your reference and would welcome the opportunity to discuss research insights with you further.

Sincerely,

Sandeep Santhosh

MSc Product Development (Chalmers University of Technology)