

Full Name Osman Sesliokuyucu
Position Asistant Professor/Director
Organization Suleyman Demirel University
Email osmansesliokuyucu@sdu.edu.tr



Personal Link(s)

www.linkedin.com/in/osmansesliokuyucu
https://www.researchgate.net/profile/Osman-Seraceddin-Sesliokuyucu?ev=hdr_xprf
<https://w3.sdu.edu.tr/personel/09868/dr-ogr-uyesi-osman-seraceddin-sesliokuyucu>
<https://scholar.google.com/citations?user=WV6MRBQAAAAJ&hl=tr>

Your Target Call

HORIZON-CL4-2027-04-HUMAN-01 —

Advanced and Innovative Hardware Components for Virtual Worlds (RIA)

Your Expected Contribution to the Project / Consortium

I expect to lead a work package on Behavioral Requirements and Validation within a Korea-led consortium. My contribution addresses a gap that hardware-focused consortia often leave open: translating an identified XR technology gap into behavioral KPIs and acceptance criteria that a hardware partner can design against, and then validating whether the resulting technology meets them.

Concretely, I bring four capabilities. First, gamified elicitation protocol design — test scenarios built on goal, feedback and challenge loops that generate richer and more reproducible behavioral signal than passive-exposure protocols. Second, a framework for modelling the AI element of an immersive system as a social actor rather than background software, allowing trust, acceptance and human–AI interaction dynamics to be measured. Third, the definition of acceptance criteria and performance targets that connect user-side requirements to hardware development decisions. Fourth, cross-cultural validation capacity, with active research ties in Türkiye, Korea and the United States.

Neuro-measurement in my work serves validation and requirement definition. The hardware innovation itself — non-invasive BCI, haptics, advanced optics — is a technology partner's contribution; my role is to specify what it must achieve and to test whether it does. Institutionally, I can commit the infrastructure of LEARC and its Space and Aviation Lab at Süleyman Demirel University to this work.

Biography

Osman Seraceddin Sesliokuyucu is an Assistant Professor in the Department of Aviation Management, School of Civil Aviation, Süleyman Demirel University, Türkiye, and Director of LEARC, the university's Leadership and Entrepreneurship Application and Research Centre. He completed his PhD at Gaziantep University in 2018 with research on global value chain upgrading, and has seventeen years of teaching experience across aviation management and related fields.

He spent three years as a visiting researcher at the Muma College of Business, University of South Florida, supported by a TÜBİTAK international research fellowship. That period established a working relationship with USF colleagues that continues today, producing joint SSCI-indexed publications and forming the basis for collaborative project work, including Erasmus+ activity across several fields. He holds an h-index of 7.

His research examines customer and employee behaviour in relation to technology and innovation, studied through gamification, artificial intelligence, and XR/AR/VR contexts. Recurring themes include algorithmic management, human–technology interaction, AI-mediated service design, and the acceptance of immersive systems in tourism and aviation settings. His work on neurophysiological measurement is conducted interdisciplinarily: he contributes the behavioural design and interpretation, working alongside colleagues whose expertise lies in the instrumentation and signal side.

He leads the Turkish side of NEURO-SPAXR, a Türkiye–Korea bilateral project titled "AI-Aware Sustainable Service Ecosystem Design in Emerging Space Tourism," conducted with Prof. Myung Ja Kim and submitted to the TÜBİTAK–NRF programme in June 2026. Under LEARC he is establishing a Space and Aviation Lab as its institutional base.

He has coordinated EU-funded Erasmus+ projects but has not yet participated as a beneficiary in Horizon 2020 or Horizon Europe. HUMAN-01 would be his first, alongside an ERC Starting Grant proposal in preparation for 2027.

Research Areas / Expertise

Main areas: customer and employee behaviour in technology-mediated environments; gamification design and its effects on engagement, motivation and performance; artificial intelligence in service settings, including algorithmic management and human appraisal of AI systems; XR/AR/VR acceptance and experience design; tourism, aviation and space tourism management.

Distinctive specialisations: the design of gamified elicitation protocols that provoke measurable, reproducible behavioural response in immersive environments, as an alternative to passive-exposure testing; the treatment of AI agents as social actors within a scenario, enabling trust and acceptance to be modelled rather than assumed; the translation of behavioural findings into acceptance criteria usable by hardware and system developers.

Methodological base: survey and experimental designs analysed primarily through partial least squares structural equation modelling, applied to acceptance, trust, engagement and behavioural intention constructs.

Key outputs and activities: SSCI-indexed publications in tourism, hospitality and service management journals; NEURO-SPAXR, a Türkiye–Korea bilateral project on AI-aware sustainable service ecosystem design in space tourism; direction of LEARC, including its Space and Aviation Lab; an edited Turkish-language academic volume on gamification currently in preparation; ORCID 0000-0001-6539-0992.

Motivation, Expectation and Plan

My motivation is to move from a bilateral Türkiye–Korea collaboration into a European consortium setting. NEURO-SPAXR established the scientific basis and the partnership with Prof. Myung Ja Kim's team; HUMAN-01 is the natural next step, and this forum is where the missing consortium roles can realistically be filled.

My specific goal is to identify hardware partners — universities, RTOs or companies developing next-generation XR components at TRL 2–4 — whose technology development would benefit from a defined behavioural validation partner, and to identify a coordinator experienced in Cluster 4 Research and Innovation Actions. I am equally interested in speaking with other Korean-led initiatives targeting the same call, since the behavioural and SSH component is a requirement that several consortia have not yet resolved.

Concrete follow-up plans: agree during the forum on which consortium my work package fits, and confirm the role in writing within four weeks; contribute a work-package description to a joint concept note during the last quarter of 2026; participate in proposal drafting ahead of submission; and formalise institutional collaboration through an MoU between LEARC and the partner institutions where a longer-term relationship is warranted. Beyond HUMAN-01, I intend to use these contacts to build the partner base for future Cluster 4 and Erasmus+ activity involving LEARC.