

AI and Robots and Autonomous Devices-Based Services Track

Track Chairs

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AI and robotic and autonomous devices-based services represent a major structural shift in tourism and hospitality toward 2040. Generative AI is reshaping how tourism value is imagined, communicated, and personalized through content creation, brand storytelling, recommendations, and customer engagement. Agentic AI further extends this shift by enabling systems to perceive, reason, decide, and act across travel planning, booking, service coordination, and real-time decision support. At the same time, service robots and embodied interfaces are bringing AI into frontline encounters in hotels, airports, restaurants, attractions, and destinations. Autonomous devices-based services supported or enhanced by intelligent devices can operate with limited or no direct human intervention.

Expanded Themes and Sub-Themes

Agentic AI and Autonomous Tourism Services

- agentic AI in travel planning, booking, and itinerary optimization;
- AI agents for reasoning, decision-making, task execution, and service orchestration;
- human oversight, delegation, control, and accountability;
- trust, risk, readiness, and dependence in autonomous services.

Conversational AI and Humanized Service Communication

- conversational AI, service chatbots, voice assistants, and virtual concierges;
- chatbot humanness, warmth, empathy, and social presence;
- emojis, language style, emotional expression, and chatbot personality;
- AI hallucination, misinformation, escalation, and service recovery;
- retrieval-augmented generation (RAG) for knowledge-grounded service communication.

Embodied AI and Service Robots

- service robots, avatars, digital humans, and embodied AI;
- robotic servicescapes and experiential service design;
- anthropomorphism, human likeness, appearance, voice, gesture, and emotion;
- comfort, eeriness, acceptance, resistance, and emotional response.

Employee-AI Collaboration and Workforce Transformation

- workforce transformation and organisational change;
- human-AI collaboration in frontline service and back-office operations;
- customer–employee–AI conflict resolution and service coordination;
- employee roles, job redesign, emotional labor, and workplace ethics;
- AI-supported training, skill development, leadership, and organizational readiness.

AI-Driven Marketing and Customer Journeys

- AI-driven segmentation, targeting, personalization, and customer portfolio strategy;
- AI SEO, recommendation systems, social listening, and reputation management;
- generative AI for brand communications, storytelling, and promotion;
- multimodal AI for text, image, audio, video, and 3D tourism content;
- pricing, revenue analytics, customer journeys, and lifetime value.

Phygital Destinations and Smart Ecosystems

- phygital and metaverse service environments;
- virtual–physical destination co-evolution;
- platforms, digital intermediaries, and destination ecosystems.

Ethics, Governance, and Responsible AI

- privacy, consent, surveillance, and data rights;
- transparency, disclosure, and algorithmic legitimacy;
- bias, fairness, cultural stereotyping, and representational harms;
- explainable AI (XAI), interpretability, and trustworthy AI governance;
- accessibility, inclusion, consumer vulnerability, and digital inequality;
- AI safety, alignment, red teaming, and responsible deployment.

This track welcomes conceptual, empirical, and methodological submissions on AI and robotic and autonomous services in tourism and hospitality. Cross-disciplinary work from human-computer interaction, information systems, marketing, psychology, sociology, ethics, and related fields is encouraged, including developmental papers, comparative studies, and academia–industry collaborations.

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