Special Session: Ethical Dilemma of Using Intelligent and Fuzzy Systems in Clinical Practice

Session Chair: Dr. Muhsin Öznaneci,MD (General Practitioner & Data Science Graduate Student, İstanbul Medeniyet University)

Total Duration: 195 minutes (3 hours 15 minutes)

Session Type: Keynote Talks + Panel Discussion

Session Outline

1. Introduction & Opening Remarks (10 min)

Dr. Muhsin Öznaneci

Welcome & Purpose of the Session

Overview of Intelligent and Fuzzy Systems in Healthcare

Ethical Challenges in AI-Based Medical Decision-Making

2. Keynote 1: Ethical AI in Clinical Decision-Making (30 min)

Speaker Suggestion: Dr.Fatma Yeşim Işıl Ülman,PhD-Acıbadem University,Professor in Medical Ethics

Key Topics:

Medical ethics framework in AI-based decision-making

Balancing patient autonomy with AI-assisted diagnostics

Ethical dilemmas in AI-driven clinical treatments

3. Keynote 2: GDPR & AI Applications in Healthcare (30 min)

Speaker Suggestion: Dr.Gürkan Sert,LLM,PhD in Bioethics,Medical Law Expert and Professor in Marmara and Özyeğin University

Key Topics:

GDPR principles in healthcare AI

Data privacy and security challenges in AI-driven health systems

Legal liability and accountability for AI-generated medical decisions

Ethical concerns in patient data sharing and algorithm transparency

Q&A:15 Minutes

COFFEE BREAK(20 MINUTES)

4. Keynote 3: Practical AI Implementations in Medicine – A Case Study Approach (30 min)

Speaker Suggestion: Yunus Berfu Özcan - CSO@Meditechlabs- info@meditechlabs.ai

Key Topics:

Real-world applications of AI in medical imaging and diagnostics

Challenges of implementing AI in clinical settings

Future directions for AI-assisted decision support systems

5. Keynote 4: How to implement Intelligent and Fuzzy Systems into Modern Healthcare (30 min)

Speaker Suggestion:

Key Topics:Prof.Dr.Hakkı Karakaş,MD,Head Chair of Turkish Health Institute AI Division,Interventional Radiologist at Fatih Sultan Mehmet Research and Training Hospital

Real-world applications of AI in medical imaging and diagnostics

Challenges of implementing AI in clinical settings

Future directions for AI-assisted decision support systems

Q&A:15 Minutes

COFFEE BREAK(20 MINUTES)

5. Panel Discussion: The Challenges of AI & Fuzzy Logic in Clinical Applications (75 min)

Moderator:Dr.Yusuf Yeşil,Head Chair of Yeşil AI

Panelists:

Ass.Prof.Dr.Muhammet Sinan Başarslan,Assistant Professor at Istanbul Medeniyet University Department of Computer Engineering

Dr.Gürkan Sert

Dr.Metin Sezgin,Professor at Koç University Faculty of Computer Engineering

Prof.Dr.Handan Ankaralı,Professor at Istanbul Medeniyet University Department of Biostatistics

Dr.Yeşim Ülman

Dr.Hakkı Karakaş

Dr.Türker Berk Dönmez,MD,MsC-Sakarya University Department of Biomedical Engineering,Family Physician

Discussion Topics:

Transparency & Explainability in AI decision-making

Algorithmic bias in medical AI: How to mitigate risks?

Ethical & legal implications of AI-driven diagnoses

Patient autonomy and informed consent in AI-assisted medicine

Regulatory frameworks and Personalized Medicine

6. Closing Remarks & Future Directions (10 min)

Speaker: Dr. Muhsin Öznaneci

Summary of key takeaways

Call to action: Ethical AI frameworks for clinical applications

Importance of interdisciplinary collaboration between engineers, physicians, and ethicists