





PRESENTER FULL NAME: CANSU KORKUT

ORGANIZATION: Tiga Information Technologies

WORKSHOP NAME: Digital and Smart Health

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### Focusing on Healthcare IT

**Providing Dedicated Solutions** 

### **Global Certifications**

Patents & IPRs

CMMI L3

ISO 9001, ISO 27001

### **Industry & Academia**

**R&D** Center and Studies

Research Labs in Universities

50+ Academicians

### Locations

Türkiye, Saudi Arabia, Qatar,

United Kingdom, Estonia

Cooperations with 50+ countries



### **Teams' Expertises**

- Pose Detection & Estimation
- Data Anonymization
- Medical Image Processing
- Synthetic Data Generation
- Large Language Models



2 Horizon Europe Projects

1 EUREKA Project



Edge Computing
Embedded Sytems
Gamification
Mobile & Web Applications



#### **Research Fields**

### **Artificial Intelligence & Machine Learning**

- Pose Detection and Estimation
- Large Language Models
- Generative Al



### **Cybersecurity & Data Privacy**

- Data Anonymization
- Data Anomaly Detection
- Synthetic Data Generation



- Medical Image Processing
- Edge Computing
- Embedded Systems





### **Data Analytics & Business Intelligence**

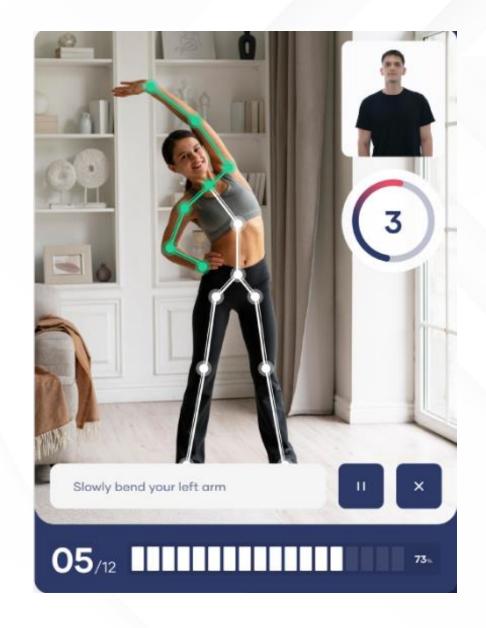
- Radar Signal Processing
- Business Intelligence Applications



# MobiThera

Al-driven telerehabilitation app for personalized exercise system

- Custom dataset
- Custom trained model
- No Extra Hardware (Works only with mobile cam)
- Real-Time Tracking
- Personalized Care Plans
- Progress Tracking
- Global Access to Experts

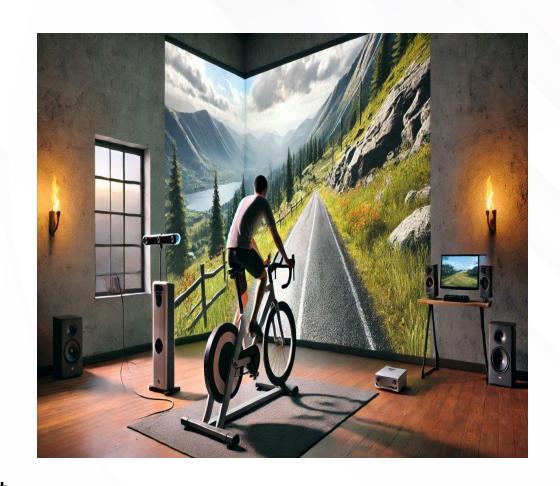




# XRCycling

Al-powered personalized exercise bike gaming platform to combat obesity

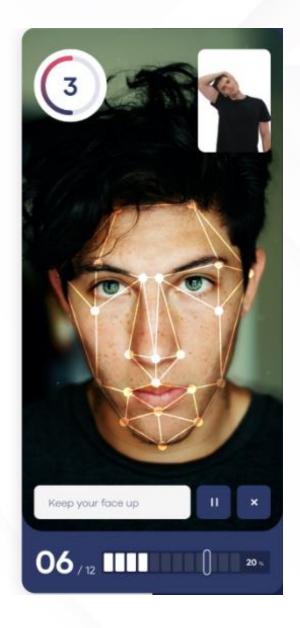
- Facial expression and fatigue analysis
- Integration of VR with Virtual Reality
- Integration of game scenarios with pedals
- Integration of EMG sensors
- Personalized exercise guidance with sports bot





# NeckEx Gamified Neck Exercise Platform

- Promptable Game Modelling
- Personalized exercise plans for neck disorders
- Remote support from experts
- Use with mobile devices, no extra sensors
- Adaptive Difficulty

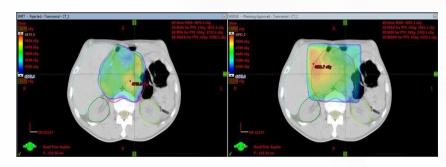


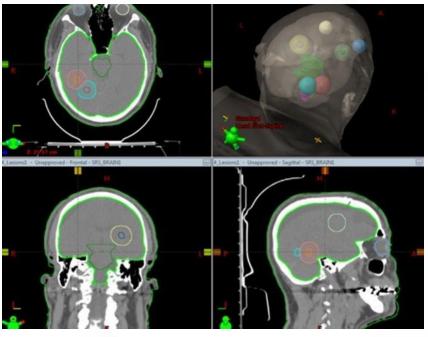


# Rad-Thera

Automated tumor and organs-at-risk segmentation

- Accurate delineation of tumors and organs-at-risk
- Enhanced treatment planning with AI algorithms
- Dose optimization for precise radiation targeting and protection of healthy tissues
- Seamless Clinical Integration







# **DMEK - TRACK**

# Al-driven monitoring for DMEK surgery patients

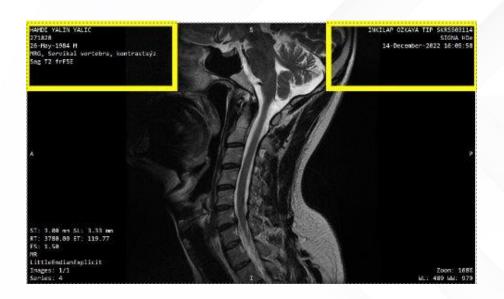
- Analyzes OCT & IVCM images for graft and cell health with AI
- Reduces unnecessary advanced exams
- Directs patients to advanced exams only when needed
- Trained and tested with real-world DMEK surgery patient data
- Custom dataset and segmentation

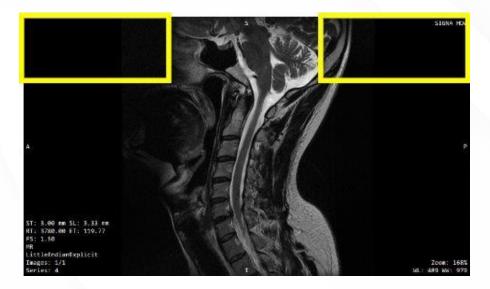




# AUTONONYM Al Based data anonymization for privacy

- Protects privacy, maintains data usability
- Uses AI to identify the most valuable representation of the dataset while preserving essential information
- Provides various statistical and AI based techniques to the user
- Ensures adherence to data protection laws (e.g., KVKK)



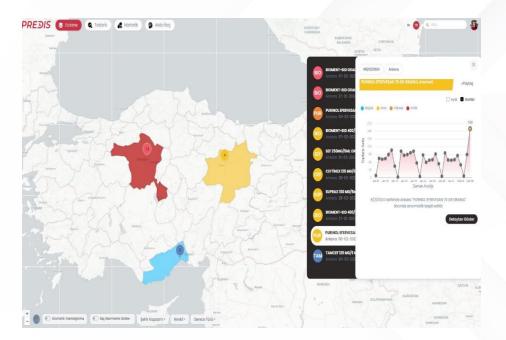


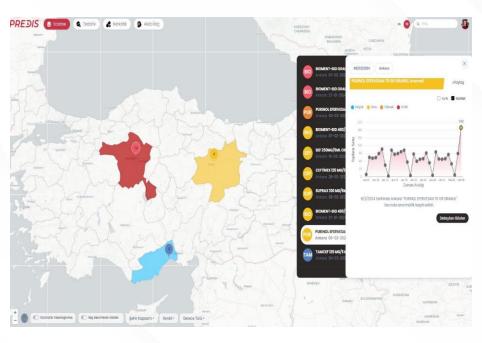


### **PREDIS**

Al-driven drug sales anomaly tracking, predicting, and procurement management system

- Regional drug sale anomalies using ITS data with the early warning system
- Tracks the path of drug including production, sales, prescription, and deactivation
- Detected anomalies are grouped based on their risk
- Prediction of drug accessibility







# **PreCareAl**

Al-powered platform for efficient patient assessments, appointments, and follow-ups

- Analyzes complaints and suggests clinics with Al Pre-assessment
- Matches patients with appropriate clinics, remote or physical
- Prepares referral for doctors
- Tracks patient progress, care, and satisfaction
- Reduces unnecessary visits





# **AISYM4MED**

Secure, privacy-compliant platform

- Anonymization, GDPR compliance
- Synthetic Data Generation
- Federated Architecture, Cross-border data
- analysis
- Robustness evaluation with real/synthetic data
- Benefits for researchers, patients, and healthcare systems

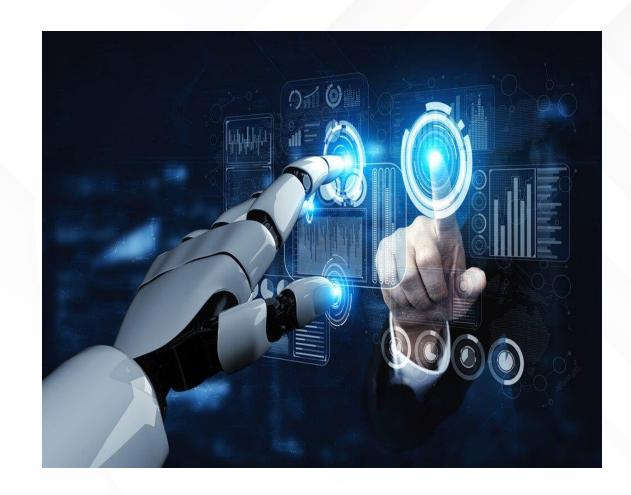




### **HIVEMIND**

Al-Driven, Responsible Software Engineering for the Entire Lifecycle

- Enhances all SDLC stages
- Adaptive LLM agents for specific roles
- Supports smart system specification and agile modeling
- Design-by-contract programming for code alignment
- Automates vulnerability assessment and selfrepair
- Integrates RAG and Human-in-the-loop for learning
- Focus on responsible Al and ethical practices





### **PREDIS**

**Call Topic:** HORIZON-HLTH-2025-01-DISEASE-04: Leveraging artificial intelligence for pandemic preparedness and response

**Deadline Dates:** 18 September 2025

☐ An LLM-based study on early detection of drug abnormalities and future diseases



#### **PreCareAl**

**Call Topic:** HORIZON-HLTH-2025-01-CARE-01: End user-driven application of Generative Artificial Intelligence models in healthcare

**Deadline Dates:** 18 September 2025

•Leveraging Generative AI to assess patient complaints, match them with suitable clinics, generate referrals, and track progress, reducing unnecessary visits and improving healthcare efficiency



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