Artificial Intelligence in Diagnostics and Surgery Planning
2023/2024/I.

Practice place: Uzsoki Hospoital, Building C, Conference room;
1145 Budapest, Uzsoki str. 29-41.
Dates: Every 2nd Tuesday, 17:15 – 18:45 (2X45')

1st occasion: NET Green/Brown lecture theatre, 05/09/2023 17:15-18:45

Week	Date	Lecture title
1.	05/09/2023	**The Concept of Artificial Intelligence and Examples of Medical Applications – Introductory Lecture**
		Q&A
2.	12/09/2023	**Free**
3.	19/09/2023	**Working Principles and Architecture of Neural Networks**
		Challenges and Solutions of Training Neural Networks
4.	26/09/2023	**Free**
5.	03/10/2023	**Similarities and Differences of Architectures and Operation of the Central Nervous System and Artificial Intelligence; Lecturer: Balázs Szegedy, PhD, Research Mathematician**
		One-Dimensional Data Processing with Convolutional Neural Networks; Electrocardiogram, Audio, Speech, and Text with Artificial Intelligence
6.	10/10/2023	**Free**
7.	17/10/2023	**Text Processing, Translation, Text Generation with Artificial Intelligence; Operating Principles of ChatGPT; Transformer Networks; Reinforcement Learning**
		Two-Dimensional Image and Video Processing with Convolutional Neural Networks
8.	24/10/2023	**Free**
9.	2023/ 10/ 31.	**Three-Dimensional Image Processing with Convolutional Neural Networks; Structure of CT and MR Medical Images; Radiomics and Artificial Intelligence**
		Artificial Intelligence in the Practice of Radiological Diagnostics; Lecturer: Dr. Egyed Zsófia PhD, Head of Radiology Department, Uzsoki Hospital
10.	07/11/2023	**Free**
11.	14/11/2023	**Operation Planning with Artificial Intelligence: Ultra-Fresh Osteochondral Allograft Donor Matching and Prosthetics Design; Lecturers: Prof. Dr. László Hangody, Dr. György Hangody**
		Practical Challenges of Collecting a Training Set: Case Study of the Training of the Ultra-Fresh Osteochondral Allograft Donor Matching Artificial Intelligence
12.	21/11/2023	**Free**
13.	28/11/2023	**Real-world Examples of Design and Execution of Therapy with Artificial Intelligence; Mistakes by Artificial Intelligence and their Reasons; Medical Practitioner's Responsibility**
		The Future of Artificial Intelligence in Medicine
14.	05/12/2023	**Free**
	12/12/2023	Written Exam (NET?)
	23/1/2024	Written Exam (NET?)