



## Thesis Defense and State Final Examination

### Study Programme Master of Artificial Intelligence and Data Science (MAID)

**Datum a místo konání (Date and Place): 10. – 11. 3. 2026, rooms K105, K209**

Date and room	10. 3. 2026, K105	10. 3. 2026, K209
Examiners:	Prof. Dr. Andreas Berl doc. Ing. Ivo Bukovský, Ph.D. PhDr. Miloš Prokýšek, Ph.D. RNDr. Tomáš Roubal, Ph.D.	Prof. Dr. Phillipp Torkler Prof. Dr. Florian Wahl Ing. Rudolf Vohnout, Ph.D. Ing. Ondřej Budík
10:00 – 11:30	AMBHALATHUVEETIL Muhammad Mufad	MOATAZ MOSTAFA MOHAMED ALY SHABAN Esmael
11:30 – 13:00	WIESER Quirin	GOYAL Shivam
Short break	-	-
13:30 – 15:00	HASSAN Muhammad Tariq	THORAT Nikhil
15:00 – 16:30	AMIREDDY Vinuthana	ATHURU Bharathsimha Reddy
16:30 – 18:00	SINHA Falgun Kumar	AHMED ABDOU MAHMOUD Moustafa (2. pokus obhajoba + DS – Distributed Algorithms)

Date and room	11. 3. 2026, K105	11. 3. 2026, K209
Examiners:	Prof. Dr. Andreas Berl Prof. Dr. Christina Bauer (8:30 – 11:30) doc. Ing. Ivo Bukovský, Ph.D. PhDr. Miloš Prokýšek, Ph.D. RNDr. Tomáš Roubal, Ph.D.	Prof. Dr. Phillipp Torkler Prof. Dr. Florian Wahl Ing. Rudolf Vohnout, Ph.D. Ing. Ondřej Budík
8:30 – 10:00	ARSALAN Muhammad	SALUNKHE DINKAR Swapnil
10:00 – 11:30	SHRESTA Diwash	HASSAN SHIVAKUMAR Darshan
11:30 – 13:00	UDDIN Syed Atif	

### Předměty (Subjects)

- Theoretical Fundamentals (TF)
- Artificial Intelligence (AI)
- Data Science (DS)

### Úterý (Tuesday) 10. 3. 2026

#### 10:00 – AMBHALATHUVEETIL Muhammad Mufad

**Thesis title:** Deep Learning for Estrus Detection in Dairy Cattle - Temporal Modeling Using LSTM Networks

Supervisor: Eider Markus, M.Sc.

Opponent 1: Michal Bechný

Opponent 2: doc. Ing. Ivo Bukovský, Ph.D.

#### 10:00 – MOATAZ MOSTAFA MOHAMED ALY SHABAN Esmael

**Thesis title:** End-to End AI Forecasting for Sparse Product-Company Series in Large-Scale Industrial Settings

Supervisor: prof. Dr. Fischer Andreas

Opponent 1: Zineddine Bettouche, M.Sc.

Opponent 2: Dr. Sobieczky Florian

**11:30 – WIESER Quirin**

**Thesis title:** Optimizing energy efficiency in data centers through the use of machine learning

Supervisor: prof. Dr. Glauner Patrick

Opponent 1: Christian Bumann

Opponent 2: Mgr. Amrit Mukherjee, Ph.D.

**11:30 – GOYAL Shivam**

**Thesis title:** Explainable Clustering For Remote Sensing

Supervisor: prof. Dr. Fischer Andreas

Opponent 1: Zineddine Bettouche, M.Sc.

Opponent 2: Ing. Rudolf Vohnout, Ph.D.

**13:30 – HASSAN Muhammad Tariq**

**Thesis title:** Photovoltaic Energy Forecasting: A Multi-Modal Physics-Informed State Space Models Approach

Supervisor: prof. Dr. Kassler Andreas

Opponent 1: Phil Aupke

Opponent 2: Prof. Dr. Javier Valdes

Opponent 3: Ing. Marta Vohnoutová

**13:30 – THORAT Nikhil**

**Thesis title:** Protein Language Models and Artificial Intelligence as Tools for Intracellular Protein Location Prediction in Complex Plastids

Supervisor: Gruber Ansgar, Dr. rer. nat.

Opponent 1: Mgr. Aleš Horák, Ph.D.

Opponent 2: Prof. Ingrid Lafontaine, Ph.D.

**15:00 – AMIREDDY Vinuthana**

**Thesis title:** Development and Evaluation of Retrieval Augmented Generation based Artificial Intelligence assistant for enterprise level private knowledge base

Supervisor: prof. Dr. Fischer Andreas

Opponent 1: Mohammed, Tousif Ahamed

Opponent 2: Ing. Jiří Jelínek, CSc.

**15:00 - ATHURU Bharathsimha Reddy**

**Thesis title:** Evaluation of AI Assistants in Organization Software Development: From Reactive AI assistants to Agentic AI Workflows

Supervisor: Prof. Zeller Bernhard

Opponent 1: Prof. Michael Heigl

Opponent 2: Ing. Ondřej Budík

**16:30 - SINHA Falgun Kumar**

**Thesis title: Closing the Loop: Simulating Perception, Planning, and Control for Autonomous Cobot Grasping In NVIDIA Omniverse Suite**

Supervisor: prof. Dr. Fischer Andreas

Opponent 1: Ahmad Alsheikh

Opponent 2: Ing. Miroslav Skrbek, Ph.D.

**16:30 - AHMED ABDOU MAHMOUD Moustafa**

**Thesis title: Design and implementation of an Educational cryptocurrency blockchain system and consensus algorithm**

Supervisor: Mgr. Amrit Mukherjee, Ph.D.

Opponent 1: doc. Ing. Vladimír Kulish, Ph.D.

Opponent 2: Ing. Marta Vohnoutová

**Středa (Wednesday) 11. 3. 2026**

**08:30 - ARSALAN Muhammad**

**Thesis title: Developing seasonal energy forecasts for wind parks using Machine Learning**

Supervisor: Prof. Dr. Bauer Christina

Opponent 1: Abhinav Tyagi, Alina Happ

Opponent 2: PhDr. Miloš Prokýšek, Ph.D.

**08:30 - SALUNKHE DINKAR Swapnil**

**Thesis title: Enhancing Signal Denoising Sensitivity Using Rényi Divergence-Based Improved Generalized Fractal Dimensions (iGFDs)**

Supervisor: doc. Ing. Vladimír Kulish, Ph.D.

Opponent 1: Mgr. Amrit Mukherjee, Ph.D.

Opponent 2: Namazi Hamidreza, Ph.D.

**10:00 – SHRESTA Diwash**

**Thesis title: Multiple Object Tracking during Surgical Instrument Packaging Process**

Supervisor: Prof. Dr. Bauer Christina

Opponent 1: Marian Schlüter

Opponent: Ph.Dr. Novák Milan, Ph.D.

**10:00 – HASSAN SHIVAKUMAR Darshan**

**Thesis title: Artificial Intelligence-driven Image Synthesis for Sensor Data**

Supervisor: Kunze Stefan, M.Sc.

Opponent 1: Simon Uhrmann, M.Sc.

Opponent 2: Ing. Ondřej Budík

**11:30 – UDDIN Syed Atif**

**Thesis title: Detection and Analysis of AI-Generated Product Reviews Using Linguistic, Statistical and Transformer-Based Models**

Supervisor: Prof. Dr. Scholz Michael

Opponent 1: Prof. Dr. Florian Wahl

Opponent 2: PhDr. Miloš Prokýšek, Ph.D.

**Návrh předkládá:**

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**Ing. Vohnout Rudolf, Ph.D.**  
vedoucí Katedry informatiky

**Návrh schvaluje:**

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**prof. RNDr. Vácha František, Ph.D.**  
děkan