UNIVERZITA PARDUBICE FAKULTA EKONOMICKO-SPRÁVNÍ

ASSESSMENT OF ANNUAL ACTIVITY PLAN OF PhD STUDENT
academic year 2023/2024

PhD student

Name and surname, academic degree:	**Zeru Kifle Kebede**
STAG ID:	E23989
Study programme:	System Engineering and Informatics
Form of study / Year of study:	Full-time
Commencement date:	3. 10. 2023
Supervisor:	prof. Ing. Petr Hájek, Ph.D.
Faculty institute (workplace):	Institute of System Engineering and Informatics
Dissertation title:	Deep Learning Model for IoT Cyber-attack Detection in Smart Cities

Study plan

Compulsory courses		Number of ECTS	Planned year of fulfilment				Date of Examination
			1.	2.	3.	4.	
1	Selected Issues of Economic Theory	20		x			
2	Methodology of Science	20	x				In-progress
3	Statistical and Mathematical Methods in Management	20	x				17.05.24
4	General Systems Theory	20	x				
Compulsory options / Optional courses							
5	Theory of Information and Data Security	10	x				
6	Artificial and Computational Intelligence	10	x				02.07.24
7							
8							
9							
State Doctoral Exam					x		
Defence of Dissertation Thesis							x

Stage of work on the dissertation

Stage of work on the dissertation in a particular academic year:	
Proposed Plan	**Real Achievements**
• Systematic literature review on Cyber-attack detection • Experiment on benchmark datasets using deep learning	A systematic review on cyber-attack detection is in-progress. Experiments on benchmark datasets using deep learning were performed and published.

Scientific-Research Activities of PhD student

Publication outcomes of PhD student, participation in projects or other relevant activities performed in a particular academic year:		
Proposed Plan	**Real Achievements**	**Points**
• 1 conference paper on cyber-attack detection using deep learning • 1 journal paper on systematic literature review in cyber-attack detection	Zeru, K. and Hajek, P. (2024, September). Detection of IoT Cyberattacks in Smart Cities: A Comparative Analysis of Deep Learning and Ensemble Learning Methods.*In Novel & Intelligent Digital Systems Conferences (...)*. Cham: Springer Nature Switzerland. The Journal paper is in-progress.	20

Pedagogical activities of PhD student

Courses taught, format of teaching or other relevant pedagogical activities in a particular year:	
Proposed Plan	Real Achievements
• Knowledge-based Management WS EMZN (2 hours) • Internet Technologies II ET12 (2 hours) • Artificial and Computational Intelligence I SS EUVI1 (2 hours)	• WS EMZN: 2 hours (seminar) • WS ETI2: 2 hours (seminar) • EUVI1: 1 lecture

Study stays in the Czech Rep. and abroad / Internships, international cooperation etc.
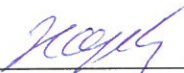
Internships and study stays in a particular academic year:	
Proposed Plan	Real Achievements
Internship 2024/2025	

Annual activity plan of PhD student in a particular academic year arranged on:		
Student's signature:	Supervisor's signature:	Head of the institute's signature:

Evaluation of student's activities performed in a particular academic year:

The student conscientiously carried out all his scientific research and pedagogical activities. He successfully completed two courses, was involved in a student research project at the Faculty, and participated in teaching at the Institute.	
Supervisor's recommendation to continue study of PhD student:	~~YES~~ ̃NO~~
Supervisor's signature:	
Agreement on supervisor's recommendation by the head of the institute:	YES NO
Head of the institute's signature:	

Annual assessment of PhD student in a particular academic year

Discussed by members of the advisory board on:	
Summary by the advisory board:	
Head of the advisory board's signature:	

Comments by the dean regarding the annual assessment:	
Dean's signature:	