

NetSys 2025

International Conference on Networked Systems

1–4 September 2025
Ilmenau, Germany



Your Guide to NetSys 2025

Overview
Detailed Program
Social Events & Dinner
Local Information

Welcome to Ilmenau!

Dear participant of NetSys 2025



On behalf of the KuVS special interest group, we are very pleased to welcome you to NetSys 2025 at Technische Universität Ilmenau!

As the sole technical university in Thuringia, TU Ilmenau is built on a long tradition as a regional driver of technological innovation. Established in 1894, it has evolved from an engineering school into a hub of academic education, covering disciplines such as electrical and mechanical engineering, media science, economics and social sciences, mathematics, natural sciences, and, since 1969, computer science and cybernetics. Since then, the university's intimate yet dynamic environment has been fostering academic collaboration both nationally and internationally.

Located in the heart of the beautiful Thuringian Forest, the town of Ilmenau offers a setting of serene nature and rich cultural history. Originally known for its mining tradition, Ilmenau later became a favored retreat for Johann Wolfgang von Goethe, who found inspiration in its natural beauty. Today, the town seamlessly blends its historical roots with a vibrant academic community, which mutually benefits from a strongly internationalized study program.

Once again, we are very happy that you are joining us at NetSys 2025, and we hope you enjoy a pleasant and inspiring stay in Ilmenau.

Boris Koldehofe
Florian Klingler



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Any location mentioned in the following is highlighted in green with a marker like this ❶ to look it up in the map at the end of this guide.

Program Overview

Start	Mon, 1 Sep			Tue, 2 Sep	Wed, 3 Sep	Thu, 4 Sep
8:30 9:00	Registration			Registration NetSys Opening Audimax	Registration	Registration ZdN Opening Audimax
9:15	ReNeSys	Tutorial: loBNT	Tutorial: 5G Drones	Keynote 1: Dr. Walter Willinger Audimax	Keynote 2: Prof. Dr.-Ing. Günter Schäfer Audimax	ZdN (1): Security and Resilience Audimax
10:15	HU-Hs			Break	Break	Break
10:30	HU 201			Hot Topics: Session 1	Hot Topics: Session 2	
10:45	Break			Audimax	Audimax	ZdN (2): Wireless Realtime Audimax
11:00	ReNeSys	Tutorial: loBNT	Tutorial: 5G Drones			
	HU-Hs	HU 201	HU129			
12:30	Lunch			Lunch	Lunch	Lunch
13:30	ReNeSys	MaLeNe	PhD Forum	KuVS Awards Ceremony Audimax	KuVS General Meeting Audimax	ZdN (3): 6G Research Audimax
14:30	HU-Hs	HU 129	HU 211/212	1-Minute-Madness Audimax	KuVS ELG Meeting	Break
15:00	Break				Break	
15:20				Posters and Demos HU Foyer, HU 201/202	Social Events City Walk/ Kickelhahn Hike Dinner Riverdam, Lake Heyda	ZdN (4): AI in Net-working, Closing Audimax
15:30	ReNeSys	MaLeNe	PhD Forum			
	HU-Hs	HU 129	HU 211/212			
17:00	Welcome Reception					NetSys Closing Audimax
	HU Foyer					
19:00						

Registration and coffee breaks will be located at the Humboldttau ① Foyer.

Lunch is available at the Mensa Ehrenberg ②.

See page 23 for further local information.

Keynotes

Keynote 1: Dr. Walter Willinger

Tue, 9:15–10:15

*When something looks too good to be true, it usually is!
AI is causing a credibility crisis in networking*

Audimax

This talk is sounding the alarm about a deeply concerning but much-overlooked development in the use of Artificial Intelligence (AI) and Machine Learning (ML) for solving problems in science in general and in particular in networking. Simply put, in today's age of AI/ML, the much-publicized and well-documented "reproducibility crisis" in science is further compounded by an inconspicuous and rarely mentioned "credibility crisis." More to the point, focusing on the area of networking research, I will provide evidence that among the already small number of reproducible publications that describe AI/ML-based solutions to specific networking problems, even fewer, and often none, describe trained AI/ML models that are "credible" in the sense that they can be trusted to not only perform well in their original training domain but also in new and untested environments. I will elaborate on the root cause of this credibility crisis, argue why the credibility of AI/ML models is key to their successful use in practice, and put forward a radical proposal for addressing this crisis head-on so as to pave the way for a future where the field of networking can reap the full benefits of AI/ML.

Speaker:

Walter Willinger is Chief Scientist at NIKSUN, Inc., a Princeton-based cybersecurity company. Before joining NIKSUN, he worked at AT&T Labs-Research in Florham Park, NJ from 1996 to 2013 and at Bellcore Applied Research from 1986 to 1996. Dr. Willinger received his Dipl. Math. degree from the ETH Zurich and his M.S. and Ph.D. degrees in Operations Research and Industrial Engineering from Cornell University. He is a Fellow of ACM (2005), IEEE (2005), AT&T (2007), SIAM (2009), and AAIA (2023); co-recipient of the 1995 IEEE Communications Society W.R. Bennett Prize Paper Award and the 1996 IEEE W.R.G. Baker Prize Award; co-recipient of the 2005 and 2016 ACM/SIGCOMM Test-of-Time Paper Awards; co-recipient of the IRTF Applied Networking Research Prize (2023); and recipient of the 2024 IEEE Internet Award. His paper "On the self-similar nature of Ethernet traffic" was featured in the 2007 IEEE ComSoc publication "The Best of the Best — Fifty Years of Communications and Networking Research", as one of the most influential papers in communications and networking in the last half century.



Keynote 2: Prof. Dr.-Ing. Günter Schäfer

Wed, 9:15–10:15

Audimax

Securing Digital Sovereignty in Large-Scale IT Infrastructures

"Digital First. Doubts Second." may have served as a catchy slogan in in a recent national election campaign, but from an IT security perspective it is certainly a bad approach for the digital transformation of economic and government organizations. Successful digitalization requires information not only to be readily available when needed, but also to be effectively protected from unauthorized access and manipulation. Maintaining the availability, integrity and efficient operation of large-scale communication and IT infrastructures has emerged as a major challenge in today's information technology landscape which is dominated by developments like outsourcing information processing to cloud computing and demand for ever higher communication and processing speeds. This talk will present various approaches to configuration and operation of large scale virtual private network (VPN) infrastructures, efficient software-based implementation of VPN data plane processing, strong tenant separation in cloud computing infrastructures, as well as maintaining communication security in VPNs in the presence of attackers with quantum computers, which over the past 18 years have been developed at the Telematics/Computer Networks research group at Technische Universität Ilmenau. Some of these approaches have already found their way into the product line of a leading German cybersecurity company, been certified by the German Federal Office for Information Security (BSI) for protecting processing of classified information, and in some instances been rolled-out to protect large-scale network infrastructures run by German authorities.

Speaker:

Günter Schäfer is a full Professor of Computer Science at Technische Universität Ilmenau, Germany. Before joining TU Ilmenau in 2005, he worked at Technische Universität Berlin, Germany from 2000 to 2005, at École Nationale Supérieure des Télécommunications Paris (now Télécom Paris), France from 1999 to 2000, and at Universität Karlsruhe (now Karlsruhe Institute of Technology, KIT), Germany from 1994 to 1999. He holds a Diploma (comparable to M.Sc.) degree in Computer Science and a Dr.-Ing. (comparable to Ph.D.) degree in Computer Science, both from Universität Karlsruhe. He is a recipient of the German IT Security Prize



Keynotes

(3rd place, 2010, together with Dr.-Ing. Michael Rossberg). Since 2014 he also serves as a member of the supervisory board of secunet Security Networks AG, Germany's leading cybersecurity company, and since 2023 he furthermore serves on the board of the German National Research and Education Network (DFN) Association.

1st Workshop on Resilient Networks and Systems
(ReNeSys 2025)

Mon, 9:15–17:15

Full Program:

HU-Hs

Start	Session	Title	Speaker(s)
8:30	Registration		
9:15	Session 1	Welcome & Agenda	Dr. Doğanalp Ergenç (TU Berlin)
9:30		Keynote 1: Soft Signals, Hard Problems: Resilience and Security in Wireless Systems	Prof. Dr. Guevara Noubir (Northeastern Uni.)
10:15		Exploiting Determinism: Low-Rate Scheduling Attacks on Time-Sensitive Networking	N. S. Bülbül (UHH), M. Fischer (UHH)
10:45	Coffee Break		
11:00	Session 2	Enhancements to P4TG: Histogram-Based RTT Monitoring in the Data	F. Ihle (Uni. Tübingen), E. Zink (Uni. Tübingen), M. Menth (Uni. Tübingen)
11:30		SENSOR: A Cost-Efficient Open-Source Flow Monitoring Platform	G. Paradzik (Uni. Tübingen), B. Steinert (Uni. Tübingen), H. Abele (Uni. Tübingen), M. Menth (Uni. Tübingen)
12:00		Generating Resilient Network Models with GeNESIS	S. Müller (Esslingen Uni.), L. Popperl (Esslingen Uni.), L. Bechtel (Esslingen Uni.), T. Heer (Esslingen Uni.)
12:30	Lunch Break		
13:30	Session 3	Opening	Dr. Shadi Attarha (Uni. Bremen)
13:45		Keynote 2	Dr. Joachim Sachs (Ericsson)
14:30		Joint Adaptation of Links and Multi-Connectivity Schemes for Resilient Industrial Communication	L. Jüschke (TU Braunschweig), L. Wolf (TU Braunschweig)
15:00	Coffee Break		

Workshops

ReNeSys 2025 Full Program (cont'd):

Start	Session	Title	Speaker(s)
15:30	Session 4	Robust LoRa via Repetition in Frequency through Signal Emulation using WiFi	S. Rösler (TU Berlin), A. Zubow (TU Berlin), F. Dressler (TU Berlin)
16:00		Towards A Holistic Framework for Access Point Placement of Resilient Networks	S. Kumar (TU Braunschweig), R. Raghunath (TU Braunschweig), E. Jorswieck (TU Braunschweig), L. Wolf (TU Braunschweig)
16:30		On Predictably Reliable Communication for Intermittent Systems	K. Vogelgesang (Uni. Saarland), T. Herfet (Uni. Saarland)
17:00	Best Paper/Presentation Award		
17:15	(Closing Time)		

3rd International Workshop on Machine Learning in Networking (MaLeNe 2025)

Mon, 13:30–17:00

Full Program:

HU 129

Start	Session	Title	Speaker(s)
13:30	Opening	Welcome	Michael Seufert, Andreas Blenk, Björn Richerzhagen
13:35	Keynote	Recent AI Trends in Industrial Network Environments	Philippe Buschmann
14:00	Session 1	I Choose You: Evaluating the Impact of Feature Selection on XAI Consensus for ML-NIDS	Katharina Dietz, Johannes Schleicher, Nikolas Wehner, Mehrdad Hajizadeh, Pedro Casas, Stefan Geißler, Michael Seufert and Tobias Hossfeld
14:20		Decentralized Federated Learning for Intrusion Detection in 5G Networks: An Asynchronous Consensus driven Multi-Agent Approach	Nasim Nezhadsistani, Francisco Enguix, Carlos Carrascosa and Burkhard Stiller
14:40		HiSTM: Hierarchical Spatiotemporal Mamba for Cellular Traffic Forecasting	Zineddine Bettouche, Khalid Ali, Andreas Fischer and Andreas Kessler
15:00	Break		
15:30	Session 2	Predicting Performance Metrics in Edge-Cloud Networks using Graph Neural Networks	Christian Maier, Nina Großegesse and Felix Strohmeier
15:50		State Cloning with the GraphLearner	Timothy Harrison and Herwig Unger
16:10		Emotion-Controlled Communication in Agent Networks	Yanakorn Ruamsuk and Herwig Unger
16:30		Client-Agnostic Continuous Authentication via Keystroke-Induced Traffic Patterns	Alexander Niedermayer, David Monschein and Oliver Waldhorst
16:50	Wrap-Up		
17:00	(Closing Time)		

Tutorials

Tutorial: IoBNT

Mon, 9:15–12:30

The Fusion of Intelligence and Scale: Neural Networks in the Internet of Bio-Nano Things

HU 201

Introduction:

The Internet of Bio-Nano Things (IoBNT) field is pioneering remarkable research and development paths for the future of medicine. At the heart of the IoBNT frameworks are nanodevices designed to monitor and actuate within the human body, addressing significant challenges for networking as they must communicate over molecular communication (MC) channels. Leveraging the robust potential of deployed neural networks (NNs) in wireless links, here we examine whether a comparable deployment is feasible within MC channels. This tutorial introduces the state of the art of NN models within the IoBNT framework. We highlight the essentials of NN-driven communication and computing approaches, mainly focusing on the bio-inspired MC paradigm. The tutorial explores the most relevant architectures, deployment, and challenges of NNs within the MC channels of IoBNT. Furthermore, this tutorial goes beyond theory; we also dedicate a session to integrating NN into practical testbeds and generating real-world datasets. By offering foundational knowledge and practical applications, this tutorial connects NN-based methodologies and the existing challenges in IoBNT.

Speakers:

Jorge Torres Gómez (Senior Member, IEEE) received the B.Sc., M.Sc., and Ph.D. degrees from the Technological University of Havana, CUJAE, Cuba, in 2008, 2010, and 2015, respectively. He is currently a Senior Researcher with the Telecommunication Networks Group, Department of Telecommunication Systems, Technical University of Berlin. He is an IEEE Senior Member, holding positions as head of educational activities at the IEEE Germany Section, supporting teaching activities and chairing conference events in education. Since 2008, he has been with the School of Telecommunications and Electronics, CUJAE University, where he was a Lecturer at CUJAE from 2008 to 2018. He has been a guest lecturer at the Department of Signal Theory and Communications, Carlos III University of Madrid, Leganés Campus, Madrid, Spain, and a postdoc at the Department of Digital Signal Processing and Circuit Technology, Chemnitz University of Technology. His research interests include the



age of information, molecular communications, digital signal processing, software-defined radio, and wireless and wired communication systems.

Pit Hofmann (Graduate Student Member, IEEE) received the Diploma degree (Dipl.-Ing.) from Technische Universität Dresden, Germany, in 2021. He continued his studies in communication networks, where he is pursuing a joint PhD at the Deutsche Telekom Chair of Communication Networks, Technische Universität Dresden, Germany, and the Centre of Tactile Internet with Human-in-the-Loop (CeTI), Dresden, Germany. He works on the 6G-life project, one of the four 6G-hubs in Germany. Since January 2024, he is also part of the "Internet of Bio-Nano Things" project funded by the Federal Ministry of Education and Research (BMBF). He has been a visiting researcher with Yonsei University, Seoul, South Korea, and Cortical Labs, Melbourne, Australia. His research focuses on molecular communications, diffusion-based molecular nanonetworks, and the Internet of Bio-Nano Things. He has published several works in the area of molecular communication, also having received a Best Student Paper Award.



Tutorials

Tutorial: 5G Drones

Mon, 9:15–12:30

Cellular-Connected Drones in 5G and Beyond

HU 129

Introduction:

The integration of drones into 5G cellular networks is set to revolutionize a wide range of applications across industrial, civilian, and military sectors. We believe that the attendees of the International Conference on Networked Systems will be interested in a tutorial on this timely and motivating topic. This tutorial will explore the latest advancements in drone communication within 5G networks, focusing on ensuring high uplink data rates and reliable downlink connectivity necessary for beyond visual line of sight operations. Additionally, we will delve into the innovative use of Reconfigurable Intelligent Surfaces (RIS) to enhance 5G networks, extending wireless coverage vertically and improving localization and radar capabilities for low-altitude drones. Key topics include strategies for achieving robust data transmission and remote control via 5G, and the development of RIS-augmented systems to provide comprehensive 3D coverage and improved drone detection and localization. In this tutorial we will attempt to provide valuable insights into the practical challenges and solutions for integrating drones into currently deployed 5G networks and how Reconfigurable Intelligent Surfaces could improve this integration in beyond 5G networks.

Speakers:

Aymen Fakhreddine is a principal investigator at the University of Klagenfurt (Austria) as a recipient of the ESPRIT grant from FWF - Der Wissenschaftsfonds (Austrian Science Fund). His expertise is in wireless communications, networking, and localization. He holds a PhD and MSc in telematic engineering from the University Carlos III Madrid (Spain), a master degree in advanced wireless communication systems from École Supérieure d'Électricité (Centrale-Supélec) in Paris (France) and an engineering degree in Telecommunications from INPT Rabat (Morocco). He previously worked as a senior researcher at Technology Innovation Institute, senior researcher at Lakeside Labs (Austria), researcher at IMDEA Networks (Spain), visiting researcher at Singapore University of Technology and Design, and research intern at Nokia Bell Labs (France).



Enrique Caballero is a doctoral student at the University of Klagenfurt interested in UAV technologies. He works on novel techniques for implementing drones in cellular networks. He holds a Master's in Aeronautical Engineering and a Bachelor's in Aerospace Engineering from the University Carlos III of Madrid. Before joining the University of Klagenfurt, Enrique worked as a systems engineer at UAV and HAPS companies, developing systems with a V&V approach. He also has entrepreneurial experience developing nautical IoT projects.



PhD Forum

Keynote

Mon, 13:30–17:00

Research Skills and their Application in the (Big Data) Industry

HU 211/212

Abstract:

During your time in academia, you'll acquire a broad range of skills, such as experimentation, data evaluation, problem solving, presenting, and many more. Some of them seem to obviously translate into industry roles, such as the classical software engineer, but others maybe not so much. In this talk, I want to share my experience of the things I did learn during my PhD, which parts I now use a lot, and what I would have liked to know at an earlier stage in my life.

Speaker:

Dominik Buse (Distributed Systems Performance Engineer, Snowflake Computing) graduated with a PhD in Computer Science from TU Berlin, after previously studying and working as a research at Paderborn University. His research focused on the simulation of wireless Car2Car networks. He then switched domains into cloud databases and now optimizes the performance of Snowflake's huge data platform by authoring benchmarks, building distributed system analysis tooling, and shaping how Snowflake uses the next generations of high-performance cloud hardware.



Posters

- Total Order in Publish/Subscribe Systems (A. Baghdadi)
- Dynamically Scheduled Mixed Critical Wired-Wireless TSN-Networks (J. Bigge)
- State of the art of P2P DTNs (L. Buhl)
- 5G-connected Drones: Command and Control, Interference, and Height Estimation (E. Caballero)
- Towards an Integrated Rail-to-Orbit Simulator with Digital Elevation Model Support (M. Franke)

- Force-Based Optimization of UAV 3D Placement for Fault-Tolerant FANETs (M. Greiner)
- Optical Computing in Data Processing Applications (W. Huang)
- Learning-Based Autonomous Network Management in Heterogeneous Mobile Networks (M. Illian)
- Designing Memory-less, Energy-Efficient Co-Processors Using Superconducting Temporal Computing (U. Majeed)
- Network Optimization for Ad-Hoc Scenarios in IoT-Systems regarding Zero-Trust Principles (A. Niedermayer)
- Lightweight Anonymizing Overlay Networks (P. Prechtel)
- Heterogeneous co-simulation of cooperative mobile systems (T. H. Pritom)
- Performance-Preserving and Efficient Inference Serving (M. Salmani)
- Unified Policy Distribution in Zero Trust Networks (J. Schoffit)
- Towards Chaos Experiments for Cloud-Native Microservices in the Insurance Industry (Chr. Schulze)
- Towards Sustainability for Data Center Networks with Reinforcement Learning (O. Wandschneider)
- Enabling Highly Dynamic Wireless Networks Through Heterogeneous Communication (S. Welzel)
- SmartNIC-Accelerated Data Processing for Machine Learning (S. Zohdi)

Hot Topics Talks

Session 1

Tue, 10:30–12:30

Audimax

- **HydraViT: Stacking Heads for a Scalable ViT**
(J. Haberer, A. Hojjat, O. Landsiedel)
- **Communication-Efficient and Provable Federated Unlearning**
(Y. Tao, C. Wang, M. Pan, D. Yu, X. Cheng, D. Wang)
- **Marina: Realizing ML-Driven Real-Time Network Traffic Monitoring at Terabit Scale**
(M. Seufert, K. Dietz, N. Wehner, S. Geißler, J. Schüler, M. Wolz, A. Hotho, P. Casas, T. Hoßfeld, A. Feldmann)
- **Networking for Immersive Communications**
(C. Gao, H. Xing, M. Sun, T. Braun)
- **Towards Generalizability of Multi-Agent Reinforcement Learning in Graphs with Recurrent Message Passing**
(J. Weil, Z. Bao, O. Abboud, T. Meuser)

Session 2

Wed, 10:30–12:30

Audimax

- **Hybrid-Fidelity: Utilizing IEEE 802.11 MIMO for Practical Aggregation of LiFi and WiFi**
(A. Zubow)
- **Measuring Mobile Starlink Performance: A Comprehensive Look**
(D. Laniewski, E. Lanfer, N. Aschenbruck)
- **Higher-Order Modulation for Acoustic Backscatter Communication in Metals**
(P. Oppermann, B. Renner)
- **NetCL: A Unified Programming Framework for In-Network Computing**
(G. Karlos, H. Bal, L. Wang)
- **Variable-Tightness Performance Bounds for Communication Networks**
(A. Rizk)

Tue, 15:00–15:20

One-Minute-Madness Session

Audimax

Authors of extended abstracts present their work in this 1-slide, 1-minute format. This sets the stage for in-depth discussions in the following poster session, right after the KuVS Awards Ceremony and in the same room.

Extended Abstracts – Poster Session

Tue, 15:30–17:00

HU Foyer

- **Critical Analysis of CVE-2024-38063: The Microsoft IPv6-Vulnerability**
(B. Kerutt, S. Kaven, V. Skwarek, M. Schwarz, B. Lorenz)
- **A Real-World Evaluation of ESP32's Suitability for Use in Wireless Ad Hoc Networks** (S. Feyerabend, J. Siebert, J. Schiel, F. Reuner, S. Egger)
- **Efficient Inference Pipeline Serving by Bi-Dimensional Autoscaling**
(M. Salmani, K. Razavi, M. Mühlhäuser, L. Wang, B. Koldehofe)
- **Misbehavior Detection of Programmable Logic Controllers (PLC) through Virtual Process Duplication** (S. Rehms, S. Köpsell)
- **A Data-driven Simulation Framework for Logical 5G-TSN Bridges**
(L. Haug, F. Dürr, S. Egger, E. Mostovaya, J. Gross, G. P. Sharma, J. Sachs)
- **Force-Based Optimization of UAV 3D Placement for Fault-Tolerant FANETs**
(M. Greiner, M. Fischer)
- **Towards Sustainability for Data Center Networks with Reinforcement Learning** (O. Wandschneider, M. Fischer)
- **Towards an Integrated Rail-to-Orbit Simulator with Digital Elevation Model Support** (M. Franke, C. Sommer)
- **Towards Chaos Experiments for Cloud-Native Microservices in the Insurance Industry**
(C. Schulze, A. Koschel, A. Hausotter, H. Meyer, T. van Dorp, L. Vermehr)
- **Enhancing Client Security in Zero Trust Architectures: A Device-Agent Policy Enforcement Point for Compartmentalized Network Management**
(J. Schoffit, L. Pietzschmann, P. Prechtel, D. Eisermann, S. Wendzel, F. Kargl)
- **Semi-Dynamic TSN Scheduling with Multi-Priority Frame Preemption for Ultra-Low Latency Wired-Wireless Networks**
(J. Bigge, C. Sommer)

Demos

Demo Session

Tue, 15:30–17:00

HU 201/202

- UAV-mounted RF Sensing for Precision Agriculture using Ground Reflections
(J. Mast, Th. Hänel, Nils Aschenbruck)
- Visualizing Signal Propagation on a 3d Model
(Th. Hänel, B. Schütz)
- POBTGO: A Population-based Topology Generator for Country-Wide Communication Networks
(F. Poignee, F. Loh, S. Schardt, F. Lipp, D. Hock, T. Hoßfeld)
- Energy-aligned Wake-up Scattering for Batteryless Devices
(J. Göpfert, S. Mosavat, M. Zella, B.-Ch. Renner)
- Multi-Service and other Recent Advancements of the OpenIDN-Laser-DAC-Framework
(M. Frank)
- Improving Isolation Guarantees, Privacy and Resilience in Shared RANs
(M. J. Stoyke)

Future of Networking (ZdN)

Full Program:

Thu, 9:00–17:00

Audimax

Start	Session	Title	Speaker(s)
9:00	Welcome & Introduction		
9:15	Session 1: Security and Resilience	Open, but not Compromised: Re-thinking Security for Open RAN	Felix Klement (Uni Passau)
		BSI 5G/6G Security Labs: Putting the security of mobile networks to the test	Heiner Grottendieck, (Referatsleiter, BSI)
		Hybrid networks for resilient communication for FRMCS	Klaus Mössner (TU Chemnitz)
		Resilience By Design	Norman Franchi (FAU Erlangen-Nürnberg)
10:45	Coffee Break		
11:15	Session 2: Wireless Realtime	Overview of DECT NR+ and its applications	Dolores Pérez Guirao (Ostfalia HW)
		Analysis of Synchronous and Asynchronous Mechanisms for Latency Guarantees in 5G-TSN Networks	José Fontalvo-Hernández (Siemens)
		The next step in TSN for 5G/6G: Wireless-friendly scheduling	Frank Dürr (Uni Stuttgart)
12:30	Lunch Break		
13:30	Session 3: 6G Research	Overview of 6G and recommendations on standardization – a view from 6G-ANNA	Nokia Munich
		HELIOS – addressing mmW-coverage challenges with passive reflectors	Christian Wietfeld (TU Dortmund)
		System- and signal-theoretical perspective for RIS-based systems	Werner Mohr
		Challenges and solutions in building an EU-wide multi-provider cloud-edge continuum	Jörg Benze (Deutsche Telekom)
15:00	Coffee Break		
15:30	Session 4: AI in Net- working	AI for RAN: Cutting Through the Hype to Deliver Measurable Gains	Abdulrahman Alabbasi (Ericsson)
		Role and potential of AI for the Radio Physical Layer	Dirk Wübben, Carsten Bockelmann (Uni Bremen)
		KG-GPT: An Intent-based Management System for Next Generation Networks using Knowledge Graphs	Varun Gowtham (Fraunhofer Fokus)
16:55	Closing Remarks		
17:00	(Closing Time)		

Social Events and Dinner



Social Event: City Walk

Wed, 16:00–17:30

- Meeting Point: **16:00** at the **city center market** ③
- Finished by ca. 17:30
- Transfer to Social Dinner: **18:30 sharp** at the **bus station** ④ (near the train station)

Enjoy a guided tour through the old town of Ilmenau, bi-lingual in German and English. Discover the past and present beauty of this cozy little gem full of history, in terms of both culture and science.

To reach the meeting point by foot, leave the campus via Ehrenbergstraße and then follow Langewiesener Straße straight ahead to the city center. Once in the pedestrian area near the church, turn right and head uphill until you reach the **market square and Rathaus** ③ (cf. map). The tour guides will await you there.

After the tour, you will have a bit of time to continue exploring on your own until 18:30, when a bus will pick you up from the nearby bus station to our dinner at Heyda.



Social Events and Dinner

Social Event: Kickelhahn Hike

Wed, 15:45–17:30

- Meeting Point: **15:45 sharp** at **Humboldttau** ①
- Finished by ca. 17:30 for bus transfer to *Riverdam*

We will have a bus transfer to the foot of Ilmenau's well-known and picturesque local mountain, the Kickelhahn. From there, also our pickup spot for the later bus to the Social Dinner, we climb the path to the Kickelhahn summit. We pass the *Goethehäuschen*, the very shelter where J. W. von Goethe wrote his famous poem "Wandrer's Nachtlid" on the wooden walls.



Just like him, we will make the ascent in the evening hours, with the hills of the Thuringian Forest painted in warm colors. But unlike the famous poet, we don't have to spend the night in a shelter; instead, we will be picked up for dinner directly after the hike.



Hike Start
(interactive map)



Social Events and Dinner

Dinner: Steakhouse *Riverdam* at Lake Heyda

Wed, 19:00

- Transfers:
 - by bus from Ilmenau, **18:30 sharp** at the bus station ④
 - by bus directly after the Kickelhahn hike
- Get back: ordered buses will drop you near your hotels

The dinner on Tuesday evening will be held at the Riverdam Steakhouse, located on the shores of Lake Heyda.

Established in 1988 as a reservoir, Lake Heyda boasts long beaches, shallow and clean waters, and is surrounded by forests, making it a popular recreational destination near Ilmenau. The dam, which retains the Wipfra River, was originally constructed for irrigation, drinking water supply, and flood protection.

The Riverdam Hotel and Steakhouse, set on the scenic lakeside, offers top-quality beef and sophisticated cuisine in an exclusive setting.



Local Information and Map

Find Your Way Around and Parking

- All NetSys events are held at **Humboldt看** ❶, right at the heart of the TU Ilmenau “Hans Stamm Campus”
- If you arrive by car, feel free to use the **central campus parking** ❺

Catering and Lunches

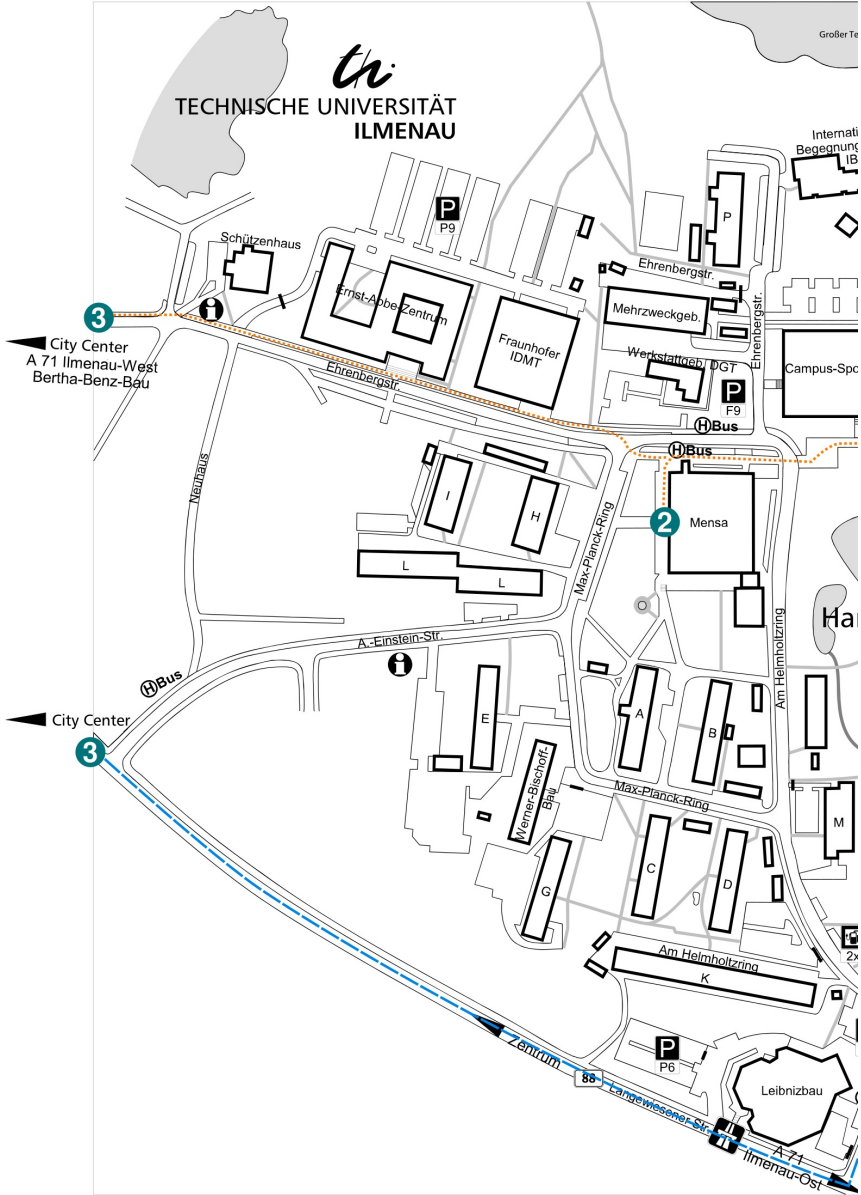
- Warm and cold beverages and snacks are provided in Humboldt看 Foyer during every break
- Lunch will be available at the **Mensa Ehrenberg** ❷ during the lunch break slots (12:30–13:30)
- Lunch vouchers are provided upon registration
- At the Mensa, mess hall “Mensa 4” is exclusively reserved for NetSys

Important Locations:

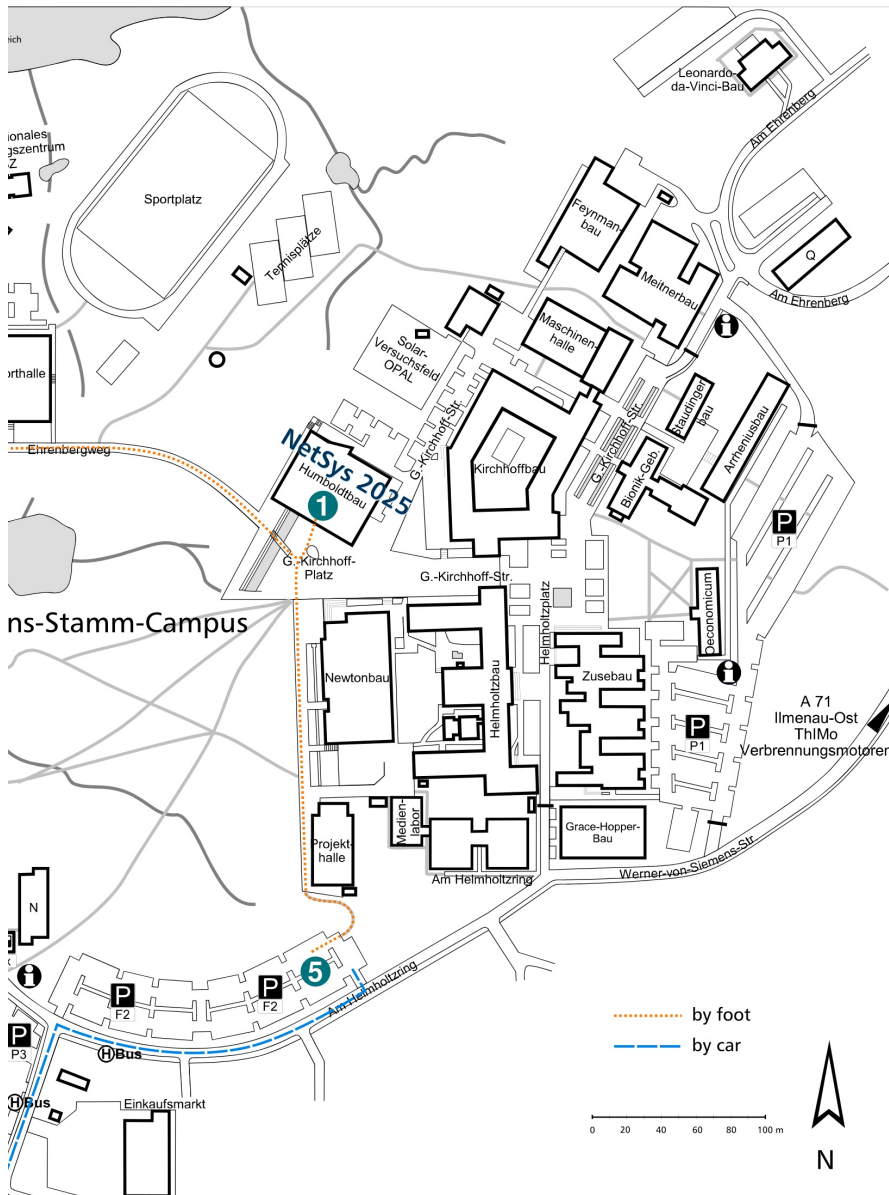
(Find these numbers on the maps, next double pages.)

- ❶ Humboldt看 (HU)
- ❷ Mensa Ehrenberg
- ❸ Market at city center
- ❹ Bus station (Busbahnhof)
- ❺ Campus parking (Zentrale Parkfläche)

Local Information and Map



Local Information and Map



Local Information and Map





Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is a small dark smudge or mark near the top center of the page. The paper appears to be part of a notebook or a set of loose-leaf papers.

NetSys 2025 website: <https://kuvs.de/netsys/2025>



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