

PROGRAM
DEXA 2025 Conferences & Workshops
25-27 August 2025, Century Park Hotel Bangkok
Address: 9 Ratchaprarop Rd, Makkasan, Ratchathewi, Bangkok 10400, Thailand

DAY 1, Monday, 25 August 2025

Time				
08:00 – 09:00	Registration			
09:00 – 10:30 90"	Opening Session (30") Steering Committee Chairs & PC Chairs Keynote Talk (30") • Sparse Matrix Algorithms for Evolving Neural Networks Carlos Ordonez, <i>Department of Computer Science, University of Houston, USA</i> Industrial Talk (30") • From Data Silos to Data Mesh: A Case Study in Financial Data Architecture Mariusz Sienkiewicz, <i>Director, Supervisory Data Analysis Center, Polish Financial Supervision Authority, Poland</i>			
10:30 – 11:00	Coffee break			
	Track 1	Track 2	Track 3	Track 4
11:00 – 12:30 90"	DEXA 1 Large Language Models (1) ID#: 64,73,62	DAWAK 1 Graph data processing and analytics ID#: 6,10,29	EGOVIS 1 Digital Transformation and E-government Inclusion ID#: 13,15,26,29	DEXA 2 ML/AI Applications (1) ID#: 3,5,18
12:30 – 13:30	Lunch break			
13:30 – 15:00 90"	DEXA 3 Data Quality (1) ID#: 17,91 & Classification Techniques ID#: 30,109	DAWAK 2 Data mining and knowledge discovery ID#: 24,48,56,49	EGOVIS 2 Legal Aspects and Semantic Approaches ID#: 21,27,28,2	DEXA 4 Data Integration ID#: 42,43,78,50
15:00 – 15:30	Coffee break			
15:30 – 17:00 90"	DEXA 5 Analytics 1 ID#: 63,113,119	DAWAK 3 Data management and Indices 1 ID#: 54,31,30,12	DEXA 6 ML/AI Applications 2 ID#: 38,40,53,75	DEXA 7 Graph Applications ID#: 66,56,112
18:00 – 20:00	Welcome Reception			

DAY 2, Tuesday, 26 August 2025

Time				
08:00 – 09:00	Registration			
09:00 – 10:30 90"	Invited Talks • Data integration in the AI era: research trends and still open issues Robert Wrembel, <i>Poznan University of Technology, Poland</i> • Blending Contextual Data with Heterogeneous Time Dimensions for Improved Time Series Analysis Anton Dignös, <i>Free University of Bozen-Bolzano, Italy</i> • A Hybrid Data Model to Support Transportation Analytics of Emergency Service Vehicles Carson K. Leung, <i>University of Manitoba, Canada</i>			
10:30 – 11:00	Coffee break			
	Track 1	Track 2	Track 3	Track 4
11:00 – 12:30 90"	DEXA 8 Large Language Models 2 ID#: 7,11,83,114	DAWAK 4 Sequential data analytics and recommendation systems ID#: 43,46,26,34	EGOVIS 3 AI in E-Government ID#: 10,23,4,14	DEXA 9 Data Quality 2 ID#: 68,45,35,102
12:30 – 13:30	Lunch break			
13:30 – 15:00 90"	DEXA 10 Analytics 2 ID#: 115,84,103,97	DAWAK 5 Large language models (LLMs) ID#: 32,35,50,62	Workshops 1 ID#: AISys-1 AI4IP- 1,2,3	DEXA 11 Image Processing, Analytics, and Vision Systems ID#28,98,15
15:00 – 15:30	Coffee break			
15:30 – 17:00 90"	DEXA 12 Recommender Techniques ID#: 29,88,76	DAWAK 6 Data management and Indices 2 ID#: 38,21,45	Workshops 2 ID#: AISys-2 AI4IP- 4,5	DEXA 13 Optimization Methods 44,57,34
19:00 – 22:00	Conference Dinner Cultural Performance and Best Paper Award			

DAY 3, Wednesday, 27 August 2025

Time			
09:00 – 10:30 90"	Tutorial • Leveraging machine learning techniques for customer data deduplication - hard-won lessons from a real-world project in the banking industry Robert Wrembel, <i>Poznan University of Technology, Poland</i>		
10:30 – 11:00	Coffee break		
	Track 1	Track 2	Track 3
11:00 – 12:30 90"	DEXA 14 ML/AI Applications 3 ID#: 8,12,59,90	Workshop 3 ID#: AISys-3 AI4IP- 6,7,8	DEXA 15 Benchmarks and Surveys ID#: 52,108,54,58
12:30 – 13:30	Lunch		
13:30 – 15:00 90"	DEXA 16 Security/Privacy ID: 13,48,92 Benchmarks and Surveys ID#: 118	DAWAK 7 Neural networks ID#: 28,44,51,61	EGOVIS 4 E-Government Cases ID#: 20,19,17
15:00 – 15:15	Coffee Break		
15:15 – 16:00	CLOSING		

Program Details

DAY 1 | Monday, 25 August 2025

- 08:00 – 09:00 **Registration** @Foyer Grand Ballroom, 3rd Fl.

09:00 – 10:30 **Plenary Session** Room: Grand Ballroom, 3rd Fl.

- 09:00 – 09:30 **Opening Session**
Steering Committee Chairs & PC Chairs
- 09:30 - 10:00 **Keynote Talk**
Sparse Matrix Algorithms for Evolving Neural Networks
Carlos Ordonez, Department of Computer Science, University of Houston, USA
Chair: **Gabriele Kotsis**
- 10:00 – 10:30 **Industrial Talk**
From Data Silos to Data Mesh: A Case Study in Financial Data Architecture
Mariusz Sienkiewicz, Director, Supervisory Data Analysis Center, Polish Financial Supervision Authority, Poland
Chair: **Gabriele Kotsis**
 - **Group Photo**
- 10:30 – 11:00 **Coffee Break**

PAPER PRESENTATIONS SESSIONS

Track 1 **DEXA 1** Room: Crystal room II-III, 3rd Fl.
11:00 – 12:30 **Large Language Models (1)** **Session Chair: Robert Wrembel**

- **Automated Archival Descriptions with Federated Intelligence of LLMs**
*Jinghua Groppe, Andreas Marquet, Annabel Walz, **Sven Groppe***
Germany
- **Entropy-Guided Probing for Predicting LLM Hallucinations with Knowledge Graph Features**
***Ushtar Ali**, **Steven Lynden**, **Akiyoshi Matono**, Toshiyuki Amagasa*
Japan
- **Towards Automating RDF Extraction for Archaeological Knowledge Graphs with LLMs**
***Ali Hariri**, Stéphane Jean, Mickael Baron*
France

Track 2 **DAWAK 1** Room: Crystal room I, 3rd Fl.
11:00 – 12:30 **Graph data processing and analytics** **Session Chair: Anton Dignös**

- **Parallel and Distributed SQL/PGQ Query Processing for Property Graphs**
Kosuke Yamasaki**, Tadashi Masuda, **Toshiyuki Amagasa
Japan
- **Graph Constraint Language for Industrial Knowledge Graphs and Machine Learning**
***Zhuoxun Zheng**, Ognjen Savković, Baifan Zhou, Antonis Klironomos, Evgeny Kharlamov, Ahmet Soylu*
Norway
- **SemViSG: Semantic Enrichment and Visualization of Software Graphs**
***Sami M'Hamdi**, Hamamache Kheddouchi, Damien Charlemagne, Olivier Bonsignour*
France

Track 3 11:00 – 12:30	EGOVIS 1 Digital Transformation and E-government Inclusion	Room: Crystal room IV, 3 rd Fl. Session Chair: Gideon Mekonnen Jonathan
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- **Charting the Crossroads of Digital Sovereignty and Digital Transformation**
Gideon Mekonnen Jonathan
Sweden
- **Exploring The Strategy of E-Government Inclusion in Developing Countries**
Gaffar Hafiz Sagala, Óri Dóra
Hungary
- **The Digital Transformation of Census in Iraq: Challenges and Opportunities**
Rozha Kamal Ahmed, Dara Rashid Mahmud, Silvia Lips, Dirk Draheim
Iraq, Estonia
- **Decentralized Auction System for Tangible Assets and Its Application**
Minh Tuan Le, Do Thi Hong Hanh, Nguyen Trong Hung, Do Phuong Nhung, Dang Khanh Hoa, Pham Thanh Cong, Dang Hai Dang, Nguyen Hoai Giang
Vietnam

Track 4 11:00 – 12:30	DEXA 2 ML/AI Applications 1	Room: Sapphire room I, 2 nd Fl. Session Chair: Talel Abdessalem
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- **Identifying Multimodal Sarcasm Based on Incongruous Knowledge Capturing and Contrastive Learning**
Yan Zhu, Chang Liu, Yiqiang Peng
China
- **Ensemble ToT and Its Application to Automatic Grading**
Yuki Ito, Qiang Ma
Japan
- **Improving Prompt-based Learning Framework for Mental Health Aspect Detection from Social Media**
Jia-Ling Koh, Hsiao-Ting Huang, Yin-Ju Lien
Taiwan

- 12:30 – 13:30 **Lunch Break**

PAPER PRESENTATIONS SESSIONS

Track 1 13:30 – 15:00	DEXA 3 Data Quality 1 & Classification Techniques	Room: Crystal room II & III, 3 rd Fl. Session Chair: Robert Wrembel
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- **A Novel Unsupervised Anomaly Detection Method Based on TCN-LSTM-CMA Autoencoder**
Jiaji Feng, Yongpan Zhang, Cheng Ding, Su Pan
China
- **Behaviour modelling and Wayfinding Error Detection in Low Mountain Hiking**
Masaharu Inoue, Hidekazu Kasahara, Qiang Ma
Japan
- **Discovering Voting Power for Ensemble Methods**
Pratik Karmakar, Angelo Saadeh, Pierre Senellart, Stéphane Bressan
Singapore, France
- **Classifying Public and Private Documents Using Context-Based Predictions**
Abrar Hasin Kamal, Anne Kayem
UK

Track 2
13:30 – 15:00

DAWAK 2
Data mining and knowledge discovery

Room: Crystal room I, 3rd Fl.
Session Chair: Carson Leung

- **FairFES - Fast Exact Sampling for Fair Classification**
Manh Khoi Duong, Nina A. Liebrand, Stefan Conrad
Germany
- **Autism Detection by Analyzing Handwriting Characteristics of Chinese Characters via Deep Learning Models**
Yunrui Li, Jasin Wong, Eva E. Chen, Syauki Aulia Thamrin, Arbee L.P. Chen
Taiwan
- **FNoDe: Faulty Node Detection in Microservices Architecture**
Harsh Borse, Utkalika Satapathy, Mainack Mondal, Bivas Mitra
India
- **An Enhanced FP-Growth Algorithm with Hybrid Adaptive Support Threshold for Association Rule Mining**
Kanda Runapongsa Saikaew, Carson K. Leung, Kritbodin Phiwhorm
Thailand, Canada

Track 3
13:30 – 15:00

EGOVIS 2
Legal Aspects and Semantic Approaches

Room: Crystal room IV, 3rd Fl.
Session Chair: Monica Palmirani

- **Mapping EU Legislative Definitions on Sustainable Development Goals using AI**
Muhammad Asif, Monica Palmirani
Italy
- **Reporting Request Ontology for European Legislation**
Monica Palmirani, Andrea Giovanni Nuzzolese, Generoso Longo
Italy
- **Digital Credentialing Framework for Continuing Professional Development: Global Practices and Integration**
Pricilla Faye T. Simon, Chutiporn Anutariya, Gaurav Dixit
Thailand
- **Japan's Electronic Voting System: Causes of Failure and Keys to Success**
Katsuhiro Musashi
Japan

Track 4
13:30 – 15:00

DEXA 4
Data Integration

Room: Sapphire room I, 2nd Fl.
Session Chair: Talel Abdessalem

- **MRF-JOIN: Differentially Private Vertical Data Synthesis via Federated Marginal Join on Shared Attributes**
Marin Matsumoto, Tsubasa Takahashi, Shun Takagi, Masato Oguchi
Japan
- **Efficient Source Selection for Federated SPARQL Queries using Adjacent Predicate Information**
Yudai Ogura, Tadashi Masuda, Toshiyuki Amagasa
Japan
- **Empathetic Response Generation in Emotional Support Conversation via Multi-Stage Cascading Information Fusion**
Jianwei Zhang, Shota Sato, Yuta Sasaki, Yuhki Shiraishi
Japan
- **Unified Schema-Driven Graph Polystore: Achieving Transparency in Multi-Model Integration and Migration**
Fumihiko Yamashita, Qiong Chang, Jun Miyazaki
Japan

- **15:00 – 15:30 Coffee Break**

PAPER PRESENTATIONS SESSIONS

Track 1
15:30 – 17:00

DEXA 5
Analytics 1

Room: Crystal room II & III, 3rd Fl.
Session Chair: Robert Wrembel

- **Analytics Modelling over Multiple Datasets using Vector Embeddings**
Andreas Loizou, Dimitrios Tsoumakos
Greece
- **Towards IoT-based Smart Mobility Framework for Proactive Road Stress Detection in Individuals with ASD**
Barry Amadou Djoulde, Nawal Guermouche, Viviane Kostrubiec, Pierre Vincent Paubel
France
- **A Divisive Unsupervised Feature Selection Approach for Explainable Remaining Useful Life Prediction**
Mouhamadou Lamine Ndao, Genane Youness, Ndeye Niang, Gilbert Saporta
France

Track 2
15:30 – 17:00

DAWAK 3
Data management and Indices 1

Room: Crystal room I, 3rd Fl.
Session Chair: Kanda Saikaew

- **Certainty Attacks Using Explainability Preprocessing**
Carina Newen, Sofia Vergara Puccini, Emmanuel Müller
Germany
- **Integrating Bitcoin Transactions into Relational Databases for IoT: Challenges and Solutions**
Rebeca Tonu, Otilia Muntean, Ciprian Pungila
Romania
- **Effects of Response Length on User Search Experience in Spoken Conversational Search**
Ken Tobioka, Takehiro Yamamoto, Hiroaki Ohshima
Japan
- **Fair Proportional Top-k Ranking**
Nina Liebrand, Manh Khoi Duong, Stefan Conrad
Germany

Track 3
15:30 – 17:00

DEXA 6
ML/AI Applications 2

Room: Crystal room IV, 3rd Fl.
Session chair: Sven Groppe

- **Dlnos: A Deep Reinforcement Learning Approach to Generalizable Autoscaling in Stateless Cloud Applications**
Constantinos Bitsakos, Dimitrios Tsoumakos, Ioannis Konstantinou, Nectarios Koziris
Greece
- **Influential Slot and Tag Selection in Billboard Advertisement**
Dildar Ali, Suman Banerjee, Yamuna Prasad
India
- **Speech-scenario Generation based on the Philosophy of Prominent Leader within the Small Community**
Tetsuya Kitahata, Kazuhiro Seki, Akiyo Nadamoto
Japan
- **VarCGAN: Variational Cyclic Generative Adversarial Network For Music Genre Style Transfer**
Pooja Singh, Dhruv Mishra, Ankita Khandelwal
India

Track 4	DEXA 7	Room: Sapphire room I, 2nd Fl.
15:30 – 17:00	Graph Applications	Session Chair: Bernhard Mitschang

- **The Missing Link: Joint Legal Citation Prediction using Heterogeneous Graph Enrichment**
Lorenz Wendlinger, Simon Alexander Nonn, Abdullah Al Zubaer, Michael Granitzer
Germany
- **Graph Patterns in Fine-grained Access Control for Graph-structured Data**
Daniel Schmid, Aya Mohamed, Dagmar Auer, **Bahara Muradi**, Josef Küng
Austria
- **An Efficient Point-of-Interest Placement Method Based on Betweenness Centrality**
Ryota Shiraishi, Ryusei Ohtani, Yuko Sakurai, **Satoshi Oyama**
Japan

18:00 – 20:00	Welcome Reception @ the Garden, 5th Floor
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DAY 2 | Tuesday, 26 August 2025

- 08:00 – 09:00 **Registration**

09:00 – 10:30	Plenary Session	Room: Grand Ballroom, 3rd Fl.
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- 09:00 – 09:30 **Invited Talk**
Data integration in the AI era: research trends and still open issues
Robert Wrembel, Poznan University of Technology, Poland
Chair: **Andrea Kö**
- 09:30 - 10:00 **Invited Talk**
Blending Contextual Data with Heterogeneous Time Dimensions for Improved Time Series Analysis
Anton Dignös, Free University of Bozen-Bolzano, Italy
Chair: **Andrea Kö**
- 10:00 – 10:30 **Invited Talk**
A Hybrid Data Model to Support Transportation Analytics of Emergency Service Vehicles
Carson K. Leung, University of Manitoba, Canada
Chair: **Andrea Kö**
- 10:30 – 11:00 **Coffee Break**

PAPER PRESENTATIONS SESSIONS

Track 1	DEXA 8	Room: Crystal room II & III, 3rd Fl.
11:00 – 12:30	Large Language Models (2)	Session Chair: Robert Wrembel

- **Ontology-Based Forest Fire Management using Complex Event Processing and Large Language Models**
Ritesh Chandra, Sonali Agarwal, Sadhana Tiwari
India
- **Table Annotation Utilizing Large Language Model and Knowledge Graph**
Ying Zhang, **Mizuho Iwaihara**
Japan
- **Improving Software Security Through a LLM-Based Vulnerability Detection Model**
Syeda Sadia Alam, **Mst Shapna Akter**, **Alfredo Cuzzocrea**
USA, Italy

- **SysResolve: Study on In-Context LLM Generation of Resolution Scripts**

Harsh Borse, Utkalika Satapathy, Mainack Mondal, Bivas Mitra
India

Track 2
11:00 – 12:30

DAWAK 4
Sequential data analytics and Recommendation system

Room: Crystal room I, 3rd Fl.
Session Chair: Shehroz Khan

- **Entity Resolution for Streaming Data with Embeddings**
Zhongwei Ma, Philippe Roose, Jiefu Song
France
- **Cross-Modal Sequential Point-of-Interest Recommendation with Lightweight Hybrid Fusion Strategy**
Tianxing Wang, Can Wang, Hui Tian, Hong Shen
Australia
- **Alternatives to Shallow Autoencoders for Collaborative Filtering**
Mario Mallea, Angela Nebot, Francisco Mugica
Spain
- **Accurate Concept Drift Detection without Updating Autoencoders**
Taisei Takano, **Hisashi Koga**
Japan

Track 3
11:00 – 12:30

EGOVIS 3
AI in E-Government

Room: Crystal room IV, 3rd Fl.
Session Chair: Asefeh Asemi

- **GenAI in Public Sector Transformation: Balancing Promise and Prudence**
Gideon Mekonnen Jonathan, Shengnan Han
Sweden
- **A Deliberation Knowledge Graph: Bridging Institutional and Civic Democratic Discourse**
Simone Vagnoni, Víctor Rodríguez-Doncel
Italy
- **Customizing Investment Recommendations Using Investor's Financial Situation in Digital Banking and E-Government**
Asefeh Asemi, Adeleh Asemi, Andrea Kö
Hungary
- **Navigating AI integration in public healthcare: The role of dynamic capabilities in transforming service delivery and strategic adaptation**
Dora Horvath, Krisztina Erdős, Noémi Szilvia Lőrincz
Hungary

Track 4
11:00 – 12:30

DEXA 9
Data Quality 2

Room: Sapphire room I, 2nd Fl.
Session Chair: Damianos Chatziantoniou

- **Explainable Time Series Anomaly Detection by Dynamic Mode Decomposition**
Shun Kawakami, Toshiyuki Amagasa, **Savong Bou**
Japan
- **Exploring Quantum Bootstrap Sampling for AQP Error Assessment: A Pilot Study**
Feng Yu, Raya Jahan
USA
- **AI-Driven Semantic Data Quality Assessment and Scoring for Relational Databases**
Antony Medeiros, Claudio Cavalcante, Nicolaas Ruberg, Sergio Lifschitz
Brazil

- **Network Anomaly Detection Using Gramian Angular Field Transformation and Vision Transformer**

Jaroslav Kobiela

Poland

- 12:30 – 13:30 **Lunch Break**

PAPER PRESENTATIONS SESSIONS

Track 1
13:30 – 15:00

DEXA 10
Analytics 2

Room: Crystal room II & III, 3rd Fl.

Session Chair: Robert Wrembel

- **Data Storytelling to Unlock the Communicative Power of Digital Twins**
*Faten EL outa, Hugo Breuillard, Guillaume Dechambenoit, **Fatma Chamekh***
France
- **Queueing Theory for Verifying the Utilization Rate of an Image Processing System**
***Jaqueline Donin Noletto Noletto**, Thiago Germano do Nascimento, Pedro Henrique Malheiros Costa Martins, et al.*
Brazil
- **Effect of frequency features of ELA maps on the detection performance of image manipulation based on DCT and FFT basis features**
Jaroslav Kobiela, Piotr Dzierwa
Poland
- **Alpha: A Multi-Attention Enhanced YOLO Framework for Robust Photovoltaic Defect Detection**
*Bechir Ben Tekfa, Amira Mouakher, **Naeem Ayoub***
Denmark

Track 2
13:30 – 15:00

DAWAK 5
Large language models (LLMs)

Room: Crystal room I, 3rd Fl.

Session Chair: Elio Masciari

- **Explaining Recovery Trajectories of Older Adults Post Lower-Limb Fracture Using Modality-wise Multiview Clustering and Large Language Models**
***Shehroz Khan**, Ali Abedi, Charlene Chu*
Canada
- **Parameter Drift as a Signal for Membership Inference in Overfit-Tuned LLMs**
Takuto Kitamura, Yu Suzuki
Japan
- **MicroSuggest: Kernel-Aware Microservice Decomposition**
***Harsh borse**, Utkalika Satpathy, Mainack Mondal, Bivas Mitra*
India
- **TraceTune: Targeted Fine-Tuning of Attention Heads for Text-to-SQL**
***Saba Zamankhani**, Kai-Uwe Sattler*
Germany

Track 3
13:30 – 15:00

Workshop (1)
AI Sys & Ai4IP

Room: Crystal room IV, 3rd Fl.

Session Chair: Ulrich Göhner

- **Exploring the benefits of iterative retrieval-augmented generation for risk mitigation in LLM responses**
***Jonas Kubesch**, Elmar Kiesling, Fajar Ekaputra, Umutcan Serles, Ioan Toma and Clemens Havas*
Austria
- **Efficient Federated Learning Integration into Existing MLOps Pipelines via Centralized Model Management**
***Tatjana Krau**, Florian Huber, Teena Chirakal, Tobias Ricken, Bernd Lüdemann-Ravit and Frieder Heieck*
Germany

- **Deep Photometric Stereo for Tool Wear Inspection**
Thomas Jäkel and Frank Schirmeier
Germany
- **Multi-Objective Reinforcement Learning for Energy-Efficient Industrial Control**
Georg Schäfer, Raphael Seliger, Jakob Rehl, Stefan Huber and Simon Hirlander
Germany

Track 4 13:30 – 15:00	DEXA 11 Image Processing, Analytics and Vision Systems	Room: Sapphire room I, 2 nd Fl. Session Chair: Carlos Ordonez
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- **Relationship Analysis of Image-Text Pair in SNS Posts**
Takuto Nabeoka, Yijun Duan, Qiang Ma
Japan
- **Enhancing Segmentation of Irregular Microstructural Elements Using Extended Channel Information and Transfer Learning**
Łukasz Marcjan, Sandra Gajoch, Dorota Wilk-Kołodziejczyk, Marcin Małysza, Krzysztof Jaśkowiec, Grzegorz Gumienny
Poland
- **Deep-RVT: A Residual Vision Transformers for Human Action Recognition**
Sayda Elmi, Morris Bell, Sai Karthik Navuluru
USA

• 15:00 – 15:30	Coffee Break
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PAPER PRESENTATIONS SESSIONS

Track 1 15:30 – 17:00	DEXA 12 Recommender Techniques	Room: Crystal room II & III, 3 rd Fl. Session Chair: Robert Wrembel
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- **Food Recommendation With Balancing Comfort and Curiosity**
Yuto Sakai, Qiang Ma
Japan
- **ONFOODS: A Substitute Recommendation System in Food Recipes**
Maryam Mozaffari, Anton Dignös, Oswald Lanz, Dominik Matt, Gabriele Pasetti Monizza, Matthias Gauly, Johann Gamper
Italy
- **Inspire Me with Your Questions: Repurposing Historical Questions for New Documents**
Yifan Liu, Yixuan Cao, Ping Luo
China

Track 2 15:30 – 17:00	DAWAK 6 Data management and Indices (2)	Room: Crystal room I, 3 rd Fl. Session Chair: Carlos Ordonez
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- **PAID: Power-efficient AI-optimized Databases**
Ayoub Bouhatous, Ladjel Bellatreche, El Hassan Abdelwahed, Carlos Ordonez
France, USA
- **On the Costs and Benefits of Learned Indexing for Dynamic High-Dimensional Data**
Terézia Slanínáková, Jaroslav Olha, David Procházka, Matej Antol, Vlastislav Dohnal
Czech Republic
- **A Bayesian Reinforcement Learning Framework for Online Index Tuning**
Md Rakibul Hasan, Xiaoying Wu, Dimitri Theodoratos
China

Track 3 15:30 – 17:00	Workshops (2) AlSys & AI4IP	Room: Crystal room IV, 3 rd Fl. Session Chair: Sebnem Gül-Ficici
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- **TrustAI: Designing and Implementing a Trustworthy and User-Centered AI Platform**
Djordje Slijepčević, Lukas Daniel Klausner, Oliver Eigner, Sara Ladner, Tobias Kietreiber, Yulia Belinskaya, Fabian Kováč, Torsten Priebe, Peter Judmaier, Michael Litschka, Matthias Zeppelzauer
Austria
- **Deep learning-based defect detection in laser powder bed fusion**
Cindy Buhl, Faiza Waheed and Ulrich Göhner
Germany
- **Prediction of CNC Manufacturing Time Under Real-World Conditions Using Graph Convolutional Networks**
Fabio Lischka, Andreas Schwarz, Dominik Wiesner, Christoph Wald, Frank Schirmeier and Ulrich Göhner
Germany

Track 4 15:30 – 17:00	DEXA 13 Optimization Methods	Room: Sapphire room I, 2 nd Fl. Session Chair: Anne Kayem
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- **Group Trip Planning Query Problem with Multimodal Journey**
Dildar Ali, Suman Banerjee, Yamuna Prasad
India
- **A Model-based Approach for Simple Construction and Efficient Evaluation of Dataframes**
Konstantina Zouni, Ioanna Moraiti, Sotirios Angelopoulos, Damianos Chatziantoniou, Verena Kantere
Greece
- **Energy and Performance Evaluation of Serverless and Serverful Models on Spark for Database Join Operations**
Phan-An-Truong Tran, Laurent D'Orazio, Thuong-Cang Phan, Le Gruenwald
France

19:00 – 22:00	Conference Dinner @ Grand Ballroom, 3rd Floor • Cultural Performance and Best Paper Award • Group Photo
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DAY 3 | Wednesday, 27 August 2025

- 08:30 – 09:00 **Registration**

09:00 – 10:30	Plenary Session	Room: Grand Ballroom, 3rd Fl.
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- 09:00 – 10:30 **Tutorial**
Leveraging machine learning techniques for customer data deduplication - hard-won lessons from a real-world project in the banking industry
Robert Wrembel, Poznan University of Technology, Poland
- 10:30 – 11:00 **Coffee Break**

PAPER PRESENTATIONS SESSIONS

Track 1
11:00 – 12:30**DEXA 14**
ML/AI Applications 3Room: Crystal room II & III, 3rd Fl.
Session Chair: Elio Masciari

- **Innovative Framework for Early Estimation of Mental Disorder Scores to Enable Timely Interventions**
Himanshi Singh, Sadhana Tiwari, Ritesh Chandra, Sonali Agarwal, Sanjay Kumar Sonbhadra, Vrijendra Singh
India
- **A Hybrid Approach to estimating AI Carbon Emissions**
Salvatore Borraccia, Elio Masciari, Enea Vincenzo Napolitano
Italy
- **Towards Efficient Quantity Retrieval from Text: an Approach via Description Parsing and Weak Supervision**
Yixuan Cao, Zhengrong Chen, Chengxuan Xia, Kun Wu, Ping Luo
China
- **A Data Product Classification by Technical and Machine Learning Aspects**
Laura Schuiki, Ulf Schreier, Holger Schwarz, Bernhard Mitschang
Germany

Track 2
11:00 – 12:30**Workshops 3**
AISys & AI4IPRoom: Crystal room I, 3rd Fl.
Session Chair: Stefan Huber

- **Collaborative Trustworthy Foundation Model Framework: An Environmental Sustainability Use-Case to Detect Contamination Objects in Organic Waste Streams**
Alexander Valentinitzsch, Batuhan Bencik, Mathias Brucker, Gregor Lammer, Cornelia Adami, Mohit Kumar, Lukas Fischer, Florian Kromp
Austria
- **A Vision-Guided Approach to Pick-and-Place Robotics: From Assembly Drawings to Industrial Assembly Automation**
Raphael Seliger, Matthias Micheler, Sebnem Gül-Ficici and Ulrich Göhner
Germany
- **Towards Real-time Tool Wear Detection on Edge Devices: A Lightweight Dimensionality Reduction Approach for Spindle Integrated Cutting Force Sensor Data**
Sebastian Unsin, Benedikt Müller, Frank Schirmeier and Thomas Jäkel
Germany
- **Energy Optimized Piecewise Polynomial Approximation Utilizing Modern Machine Learning Optimizers**
Hannes Waclawek and Stefan Huber
Germany

Track 3
11:00 – 12:30**DEXA 15**
Benchmarks and SurveysRoom: Crystal room IV, 3rd Fl.
Session Chair: Monica Palmirani

- **Workload-Based Clustering of Large Number of Database-as-a-Service Instances**
Maciej Zakrzewicz
Poland
- **Accelerating Python Code with Parallel I/O**
Robin Varghese, Hashirul Quadir, Ladjel Bellatreche, Carlos Ordonez
USA, France
- **Benchmarking Embedding Techniques for Modeling User Navigation Behavior on Task-Oriented Software**
Ikram Boukharouba, Florence Sèdes, Benoit Verhaeghe, Christophe Bortolaso
France
- **The Wrecking SQL Incremental Validation Methodology**
Ruanitto Docini, Eduardo C. de Almeida, Luiz S. Oliveira
Brazil

- 12:30 – 13:30 **Lunch Break**

PAPER PRESENTATIONS SESSIONS

Track 1 13:30 – 15:00	DEXA 16 Security/Privacy & Benchmarks and Surveys	Room: Crystal room II & III, 3 rd Fl. Session Chair: Anne Kayem
• Secure Approach for Blockchain-based Anonymous Attribute-based Searchable Encryption Scheme for Data Sharing <i>Dhruv Kalambe, Nish Shah, Payal Chaudhari, Priyanshi Manglani</i> <i>India</i> • Incremental k-anonymization for Continuously Growing Big Databases <i>Akifumi Kurumatani, Hiromasa Yoshimoto, Kazuo Goda</i> <i>Japan</i> • Post Quantum Cryptographic Schemes and Libraries Selection <i>Shubhro Roy, Mangesh Gharote, Pankaj Sahu, Sutapa Mondal, Rajan M A, Sachin Lodha</i> <i>India</i> • A Survey of Control Technologies for Autonomous Underwater Vehicles <i>Janette Kaspar</i> <i>Austria</i>		
Track 2 13:30 – 15:00	DAWAK 7 Neural networks	Room: Crystal room I, 3 rd Fl. Session Chair: Carlos Ordonez
• ONNYX : Optimized Neural Networks Yielding eXplainable insights from ECG signals-based data streams <i>Sanket Mishra, Aravindan V, Rajkanwar Singh, Hasita Chowdary Meka, Sandipan Maiti, Subhrakanta Panda</i> <i>India</i> • SpaPool: Soft Partition Assignment Pooling for Graph Neural Networks <i>Rodrigue Govan, Romane Scherrer, Philippe Fournier-Viger, Nazha Selmaoui-Folche</i> <i>New Caledonia</i> • Prediction of iterative solvers' convergence using pretraining by natural images <i>Yuki Oba, Taro Tezuka, Hidehiko Hasegawa</i> <i>Japan</i> • Local-aware Convolutional Modulation for Short-Term Sequential Recommendation <i>Tianxing Wang, Can Wang, Hui Tian, Hong Shen</i> <i>Australia</i>		
Track 3 13:30 – 15:00	EGOVIS 4 E-Government Cases	Room: Crystal room IV, 3 rd Fl. Session Chair: Andrea Kö
• From Dashboards to Do-Boards: A Data-driven Architecture for Policy Support Systems <i>Apurva Kulkarni, Pooja Bassin, Srinath Srinivasa</i> <i>India</i> • An Agentic Approach to Retrieving and Drafting Legislative Definitions <i>Leonardo Zilli, Michele Corazza, Monica Palmirani, Salvatore Sapienza Gumienny</i> <i>Italy</i> • A European Student eCard in the Context of the European Digital Identity Wallet <i>Tamas Molnar, Andrea Kö</i> <i>Hungary</i>		
• 15:00 – 15:15	Coffee Break	
15:15 – 16:00	C l o s i n g @Grand Ballroom, 3rd Fl.	