Available online at **www.joac.info**

ISSN: 2278-1862

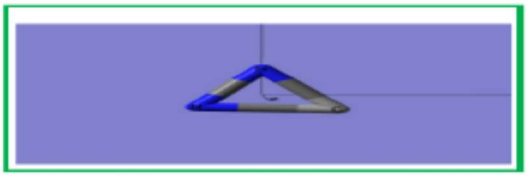
Journal of Applicable Chemistry

2025, 14 (2): 249-278

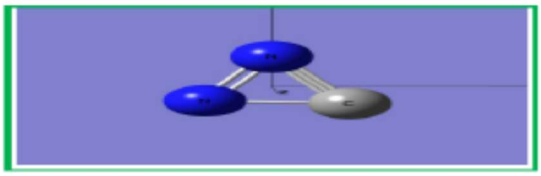
(International Peer Reviewed Journal)

New Chemistry News

$^{-}N=C=N^{-}$



New News of Chem (NNC)



ChemNewsNew (CNN)

CNN – 66a Iam

(Intelligence Augmented /Assisted Method)

TransFormer NN Select references

Information Source	sciencedirect.com;	
S. Narasinga Rao M D *Associate Professor,* *Emergency Medicine dept.,* *Andhra Medical College,* *King George Hospital* *Visakhapatnam, A.P., India*	*K. Somasekhara Rao, Ph D* *Dept. of Chemistry,* *Acharya Nagarjuna Univ.,* *Dr. M.R.Appa Rao Campus,* *Nuzvid-521 201, India*	*R. Sambasiva Rao, Ph D* *Dept. of Chemistry,* *Andhra University,* *Visakhapatnam 530 003,* *India*
snrnaveen007@gmail.com (+91 98 48 13 67 04)	sr_kaza1947@yahoo.com (+91 98 48 94 26 18)	rsr.chem@gmail.com (+91 99 85 86 01 82)

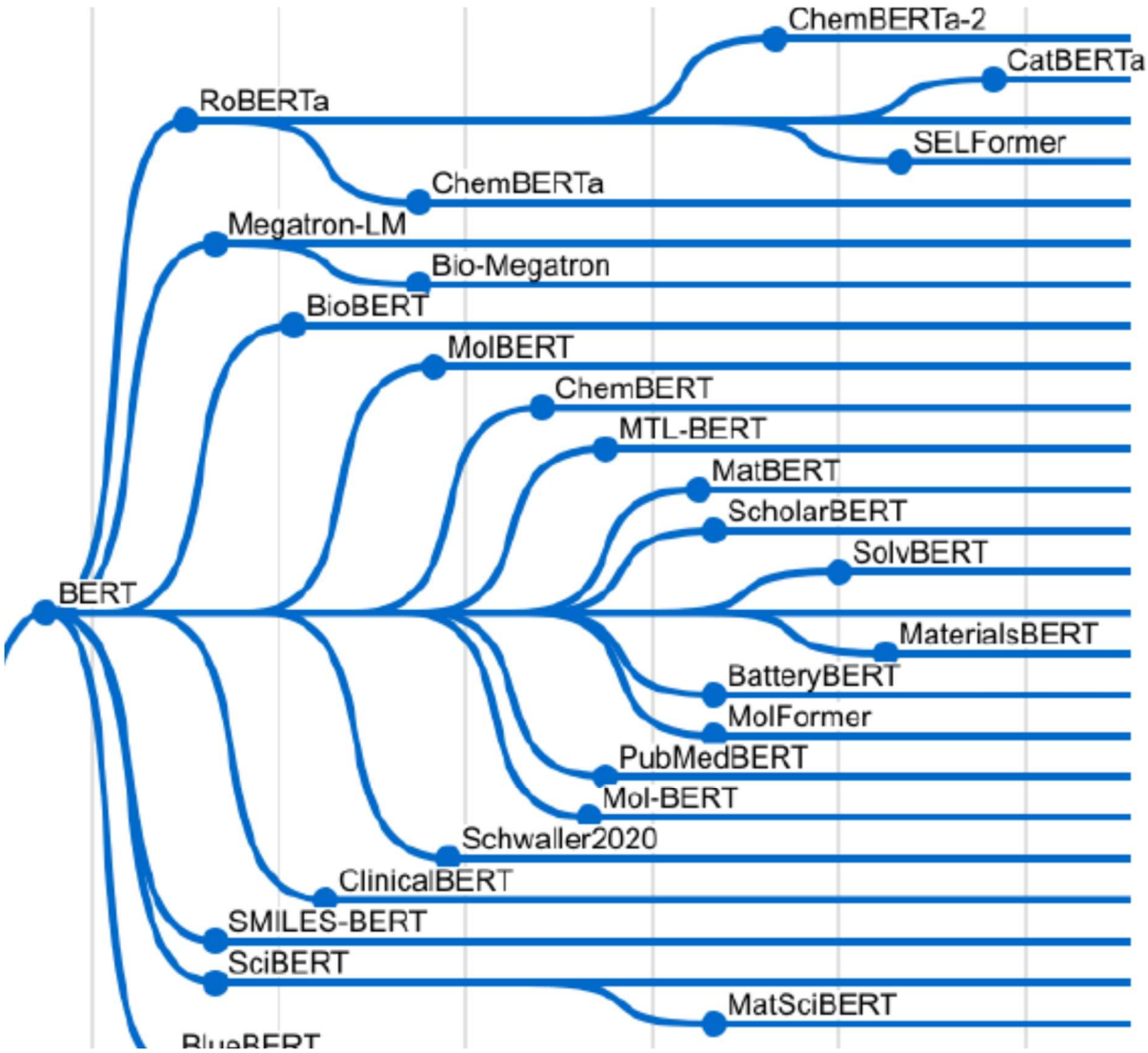
Conspectus:

- AI is a Tool-box— GPT model is a Tool in the off-shooted research ventures. The products are for human peace. How we use it will decide the future of impact of AI on human race and society.
- OpenAI, in the year 2017, introduced GPT-1, the first model in GPT saga. It used unsupervised pretraining for 110 million parameters. It was Trained on books corpus to predict the next word in a sequence. It lacked strong contextual understanding.

Evolution of Generative Pre-Training (GPT) models:

- GPT-2 (with 1.5 billion parameters) using few-shot learning in 2018, generated coherent text passages. The limitation was it sometimes produced nonsensical or biased text and has difficulty in reasoning beyond surface-level patterns.
- GPT-3 (with 175 billion parameters) brought out in 2019, has improved natural language understanding/ improving text generation quality/ few-shot learning in training. It was trained on internet text data (hundreds of billions of words). However, the difficulty with GPT-3 was prone to verbosity, incoherent generation of text, factual inaccuracies, and inability to perform tasks requiring deep reasoning. It still struggles with complex, multi-step reasoning and factual consistency, although it provided improved handling of some language tasks.
- GPT-4 (with 1 trillion parameters) was released in 2023. It is better in understanding and generating text. The unique feature is that it accepts and processes multimodal (images + text) data. Yet, it cannot deal with complex mathematical proofs or understanding abstract relationships.

Future (speculative) roadmap of GPT(5,6,…): The exact details of the future GPT models have not been officially released. The contemplated/expected realizations include larger number of parameters (trillions), multi-modal training data (petabytes,..), quantum computers with quantum software tools, Generalized_AI-methods, real- time access of scientific/technological research journals (inclusive of paid ones?), integrated reasoning components (e.g., symbolic reasoning, neural-symbolic integration) and enhancing human-AI collaboration, where the model assists in complex decision-making processes. A highly specialized GPT-6 could excel in fields like medicine, law, defense or scientific research.



AI by 2100: The possibilistic man-made-realizations with AI in and outside of human perception/society in the coming decades (during 2030 to 2100 year) contemplated are

- Cognitive and Multimodal Synthesis (2030-2040) [True General Artificial Intelligence (AGI) ; Integrated Knowledge Systems from multi-modal-data, Models that can understand and enhance human thinking [Human-AI Collaboration];
- Emotional and Sentient AI (2040-2050) [AI with Advanced Creativity, Autonomous Scientific Discovery from automatic/adaptive conduct of scientific research, generating hypotheses, and carrying out experiments, across a variety of disciplines]
- Human-AI Symbiosis and Augmentation (2050-2070) [Human Cognition Augmentation with seamless integration between AI and human cognition, resulting in blurring boundaries between humans and AI, Personalized AI Assistants, which evolve with the individual over time, adapting to personal growth, preferences, and needs in real-time and Integration of AI in Governance and Society with Transparent and interpretable decision-making algorithms for public systems, predictive models for governance, and AI-driven economic systems.]

The Singularity? utopian / real/virtual/ hallucination [2070-2100] [Autonomous, self-improving systems that can innovate, create, and explore on their own without human intervention ; Emergence of intelligence that is hard to predict or understand by even by the then humans; Advances in neurotechnology, AI-driven human enhancement, and perhaps even artificial bodies for human consciousness; The possibility of merging human consciousness with AI or extending human life through AI-driven enhancements]. A point where AI surpasses human intelligence in virtually every domain, potentially leading to profound changes in the structure of society and human life itself]

Keywords: Artificial intelligence (AI); Capsule Neural Nets— MLP-Attention Mechanism-TransFormer Neural Nets—Hybrid TransFormer Networks--

CNN : [C [Computations; Computer; Chemistry] NN [New News; News New; Neural Nets; Nature News; News of Nature;]]
Fits : [Figure Image Table Script;]

K(nowledge)Lab
rsr.chem1979

AI	Transformer			01
Second-order transformer network for video recognition				Ti
Alexandria Engineering Journal, 114, 2025, 82–94 doi.org/10.1016/j.aej.2024.11.067				Jo
Bingbing Zhang, Wei Dong, Zhenwei Wang, Jianxin Zhang, Qiule Sun				Au

AI	Transformer			02
Automated structural resilience evaluation based on a multi-scale transformer network using field monitoring data				Ti
Mechanical Systems and Signal Processing, 222, 2025, 111813 https://doi.org/10.1016/j.ymssp.2024.111813				Jo
Zepeng Chen, Qitian Liu, Zhenghao Ding, Feng Liu				Au

AI	Transformer			03
GradToken: Decoupling tokens with class-aware gradient for visual explanation of Transformer network				Ti
Neural Networks, 181, 2025, 106837 doi.org/10.1016/j.neunet.2024.106837				Jo
Lin Cheng, Yanjie Liang, Yang Lu, Yiu-ming Cheung				Au

AI	Transformer			04
DHCT-GAN: Improving EEG Signal Quality with a Dual-Branch Hybrid CNN–Transformer Network				Ti
Sensors, 25, 2025, 231. https://doi.org/10.3390/s25010231				Jo
Yinan Cai, Zhao Meng and Dian Huang				Au

AI	Transformer			05
DCTnet: a double-channel transformer network for peach disease detection using UAVs				Ti
Complex & Intelligent Systems, 11, 2025, 111 https://doi.org/10.1007/s40747-024-01749-w				Jo
Jie Zhang, Dailin Li, Xiaoping Shi, Fengxian Wang, Linwei Li, Yibin Chen				Au

AI	Transformer			06
A method based on hybrid cross-multiscale spectral-spatial transformer network for hyperspectral and multispectral image fusion				Ti
Expert Systems with Applications, 263, 2025, 125742				Jo
Yingxia Chen, Mingming Wei, Yan Chen				Au

AI	Transformer			07
EHCTNet: Enhanced Hybrid of CNN and Transformer Network for Remote Sensing Image Change Detection				Ti
https://doi.org/10.48550/arXiv.2501.01238				Jo
Junjie Yang, Haibo Wan and Zhihai Shang				Au

AI	Transformer			08
MSLSNet: A Combination of Multi-task Self-supervised Learning and Swin Transformer Network For Face and Keypoint Detection In Thermal Images				Ti
Expert Systems with Applications, 268, 2025, 126238				Jo
Pooriya Aghamidi, Fatemeh Mirzae, Zahra Bahmani				Au

AI	Transformer			09
ST-TNet:An Spatio-temporal Joint Transformer Network for CSI Feedback in FDD-MIMO Systems				Ti
Physical Communication, 68, 2025, 102570. DOI: https://doi.org/10.21203/rs.3.rs-4609872/v1				Jo
Linyu Wang, Yize Cao, Jianhong Xiang, Hanyu Jiang, Yu Zhong				Au

AI	Transformer			10
State of Health Estimation for Lithium-Ion Batteries Based on Voltage Segment and Transformer				Ti
Journal of Energy Storage, 108, 2025, 115200 https://doi.org/10.1016/j.est.2024.115200				Jo
Xing Shu, Hao Yang, Xi Liu, Renhua Feng, Jiangwei Shen, Yuanzhi Hu, Zheng Chen, Aihua Tang				Au

AI	Transformer			11
HADT: Image super-resolution restoration using Hybrid Attention-Dense Connected Transformer Networks				Ti
Neurocomputing, 614, 2025, 128790 https://doi.org/10.1016/j.neucom.2024.128790				Jo
Ying Guo, Chang Tian, Jie Liu, Chong Di, Keqing Ning				Au

AI	Transformer			12
SoyaTrans: A novel transformer model for fine-grained visual classification of soybean leaf disease diagnosis				Ti
Expert Systems with Applications, 260, 2025, 125385 doi.org/10.1016/j.eswa.2024.125385				Jo
Vivek Sharma, Ashish Kumar Tripathi, Himanshu Mittal, Lewis Nkenyereye				Au

AI	Transformer	Med		13
A cancer diagnosis transformer model based on medical IoT data for clinical measurements in predictive care systems				Ti
BioImpacts, 15, 2025, 30640 doi: 10.34172/bi.30640				Jo
Panpan Li, Yan Lv, Haiyan Shang				Au

AI	Transformer			14
ECTFormer: An efficient Conv-Transformer model design for image Recognition				Ti
Pattern Recognition, 159, 2025, 111092 doi.org/10.1016/j.patcog.2024.111092				Jo
Jaewon Sa, Junhwan Ryu, Heegon Kim				Au

AI	Transformer			15
MART: MultiscAle Relational Transformer Networks for Multi-agent Trajectory Prediction				Ti
Lecture Notes in Computer Science, 15124. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72848-8_6				Jo
Seongju Lee, Junseok Lee, Yeonguk Yu, Taeri Kim, Kyoobin Lee				Au

AI	Transformer			16
Fractal-domain Transformer Based on Learnable Multifractal Spectrum for Chaotic Systems Classification				Ti
Physica A: Statistical Mechanics and its Applications, 658, 2025, 130276 doi.org/10.1016/j.physa.2024.130276				Jo
Gang Xiong, Wenyu Huang, Tao Zhen				Au

AI	Transformer			17
Identifying COVID-19-Infected Segments in Lung CT Scan Through Two Innovative Artificial Intelligence-Based Transformer Models				Ti
Archives of Academic Emergency Medicine. 2025; 13(1): e21 doi: 10.22037/aaemj. v13i1.2515				Jo
ZeinabMomeni Pour, Ali Asghar Beheshti Shirazi				Au

AI	Transformer			18
A Novel Wind Power Probabilistic Forecasting System Based on Transformer Networks and Multi-Objective Optimization				Ti
http://dx.doi.org/10.2139/ssrn.5080366				Jo
Qingyang Shu, Yao Dong, Mengyuan Tong, Jianzhou Wang				Au

AI	Transformer			19
Exploiting Transformer-Based Networks And Boosting Algorithms For Ultralow Compressible Boride Design				Ti
ChemRxiv., 2025 doi:10.26434/chemrxiv-2025-z6zfd				Jo
Edirisuriya Siriwardane, Rongzhi Dong, Jianjun Hu, Deniz Cakir				Au

AI	Transformer			20
Rain removal method for single image of dual-branch joint network based on sparse transformer				Ti
Complex & Intelligent Systems, 11, 2025 https://doi.org/10.1007/s40747-024-01711-w				Jo
Fangfang Qin, Zongpu Jia, Xiaoyan Pang, Shan Zhao				Au

AI	Transformer			21
Multigranularity Parallel Pyramidal Transformer Model for Ethylene Production Prediction and Energy Efficiency Optimization				Ti
Processes, 13, 2025, 104 https://doi.org/10.3390/pr13010104				Jo
Biying Lu, Yingliang Bai and Jing Zhang				Au

AI	Transformer			22
Remote Sensing Image Change Detection based on Swin Transformer and Cross-Attention Mechanism				Ti
Earth Science Informatics, 18, 2025 DOI: https://doi.org/10.21203/rs.3.rs-4712422/v1				Jo
Weidong Yan, Li Cao, Pei Yan, Chaosheng Zhu and Mengtian wan				Au

AI	Transformer			23
Transformer based deep learning for digital image correlation				Ti
Optics and Lasers in Engineering, 184, 2025, 108568 https://doi.org/10.1016/j.optlaseng.2024.108568				Jo
Yifei Zhou, Qianjiang Zuo, Nan Chen, Licheng Zhou, Bao Yang, Zejia Liu, Yiping Liu				Au

AI	Transformer			24
A vision transformer-based robotic perception for early tea chrysanthemum flower counting in field environments				Ti
Journal of Field Robotics, 42, 1, 2025, 65-78 https://doi.org/10.1002/rob.22398				Jo
Chao Qi, Kunjie Chen, Junfeng Gao				Au

AI	Transformer			25
When Fast Fourier Transform Meets Transformer for Image Restoration.				Ti
Lecture Notes in Computer Science, vol 15103. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72995-9_22				Jo
Xingyu Jiang, Xiuhui Zhang, Ning Gao and Yue Deng				Au

AI	Transformer			26
Multi-Patch De-Raindrop Transformer for UAV images				Ti
Signal, Image and Video Processing, 19, 2025, 1-8. https://doi.org/10.21203/rs.3.rs-4729489/v1				Jo
Yufeng Li, Qianhui Zhou, Chuanlong Xie, Shuang Wu				Au

AI	Transformer			27
Gait Recognition with Global-Local Feature Fusion Based on Swin Transformer-3DCNN				Ti
Signal, Image and Video Processing, 19, 2025, 1-9. https://doi.org/10.21203/rs.3.rs-4302315/v1				Jo
Ting Wang, Guanghang Zhou, Yanfeng Pu, Ramón Moreno, Guoping Yang				Au

AI	Transformer			28
Dual-Path Adversarial Lifting for Domain Shift Correction in Online Test-time Adaptation				Ti
Lecture Notes in Computer Science, 15125. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72855-6_20				Jo

Yushun Tang, Shuoshuo Chen, Zhihe Lu	Au

AI	Transformer			29
Tracer-Separator: A Deep Learning Model for Brain PET Dual-Tracer (18F-FDG and Amyloid) Separation				Ti
Clinical Nuclear Medicine, 50, 2025, 1-10 DOI: 10.1097/RLU.0000000000005511				Jo
Sanaat, Hu, Boccalini, Salimi, Mansouri, Teixeira, Mathoux, Garibotto, Zaidi,				Au

AI	Transformer			30
Think before Placement: Common Sense Enhanced Transformer for Object Placement				Ti
Lecture Notes in Computer Science, 15131. Springer, Cham.2025 https://doi.org/10.1007/978-3-031-73464-9_3				Jo
Yaxuan Qin, Jiayu Xu, Ruiping Wang and Xilin Chen				Au

AI	Transformer			31
Restoring Images in Adverse Weather Conditions via Histogram Transformer				Ti
Lecture Notes in Computer Science, 15080. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72670-5_7				Jo
Shangquan Sun, Wenqi Ren, Xinwei Gao, Rui Wang and Xiaochun Cao				Au

AI	Transformer			32
PolyRoom: Room-aware Transformer for Floorplan Reconstruction				Ti
Lecture Notes in Computer Science, 15108. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72973-7_19				Jo
Yuzhou Liu, Lingjie Zhu, Xiaodong Ma, Hanqiao Ye, Xiang Gao, Xianwei Zheng and Shuhan Shen				Au

AI	Transformer			33
Research on the Recommendation Method of Urban Location Point of Interest Based on DTCN-EFFN Transformer				Ti
The Journal of Supercomputing, 2025 doi.org/10.21203/rs.3.rs-4951074/v1				Jo
Jing Zhang, Bing Li, Yao Zhang, Yuguang Xu, Hongan Li				Au

AI	Transformer			34
Large-scale multi-center CT and MRI segmentation of pancreas with deep learning				Ti

Medical Image Analysis, 99, 2025, 103382 doi.org/10.1016/j.media.2024.103382	Jo
Zheyuan Zhang, Elif Keles, Gorkem Durak, Yavuz Taktak, Onkar Susladkar, vandan Gorade, Debesh Jha, Asli C. Ormeci, Alpay Medetalibeyoglu, Lanhong Yao, Bin Wang, Ilkin Sevgi Isler, Linkai Peng, Hongyi Pan, Camila Lopes Vendrami, Amir Bourhani, Yury Velichko, Boqing Gong, Concetto Spampinato, Ayis Pyrros, Ulas Bagci	Au

AI	Transformer			35
Enhancing keratoconus detection with transformer technology and multi-source integration				Ti
Artificial Intelligence Review, 58, 2025, 22 https://doi.org/10.1007/s10462-024-11016-6				Jo
Osama Ismael				Au

AI	Transformer			36
MDTNet: Partial transformer with degradation-aware module for restoring old photos with multiple degradations				Ti
Neurocomputing, 616, 2025, 128866 https://doi.org/10.1016/j.neucom.2024.128866				Jo
Liqin Cao, Yuan Zhao, Fan Zhang, Xuan Zhang, Ju Hua Liu, Yanfei Zhong				Au

AI	Transformer			37
LineTR: Unified Text Line Segmentation for Challenging Palm Leaf Manuscripts				Ti
Lecture Notes in Computer Science, 15319. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-78495-8_14				Jo
Vaibhav Agrawal, Niharika Vadlamudi, Muhammad Waseem, Amal Joseph, Sreenya Chitluri, and Ravi Kiran Sarvadevabhatla				Au

AI	Transformer			38
Improving bearing fault diagnosis method based on the fusion of time- frequency diagram and a novel vision transformer				Ti
The Journal of Supercomputing, 81, 2025, 1-27. https://doi.org/10.1007/s11227-024-06793-4				Jo
Jingyuan Wang, Yuan Zhao, Wenyan Wang				Au

AI	Transformer			39
GSTran: Joint Geometric and Semantic Coherence for Point Cloud Segmentation				Ti
Lecture Notes in Computer Science, 15318. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-78456-9_29				Jo
Abiao Li, Chenlei Lv, Guofeng Mei, Yifan Zuo, Jian Zhang and Yuming Fang				Au

AI	Transformer			40

A Novel Object Categorization Decoder from fMRI Signals Using Deep Neural Networks	Ti
Frontiers in Biomedical Technologies, 12, 2025	Jo
Alireza Shakeripour, Zahra Bahmani, Poorya Aghaomidi, Shima Seyed-Allaei	Au

AI	Transformer			41
Progressive alignment and interwoven composition network for image stitching				Ti
Complex & Intelligent Systems, 11, 2025, 90 https://doi.org/10.1007/s40747-024-01702-x				Jo
Xiaoting Fan, Long Sun, Zhong Zhang, Tariq S. Durrani				Au

AI	Transformer			42
HandDAGT: A Denoising Adaptive Graph Transformer for 3D Hand Pose Estimation				Ti
Lecture Notes in Computer Science, 15146. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73223-2_3				Jo
Wencan Cheng, Eunji Kim and Jong Hwan Ko				Au

AI	Transformer	Traveling Salesman Problem		43
Deep Reinforcement Learning Combined with Transformer to Solve the Traveling Salesman Problem				Ti
The Journal of Supercomputing, 81, 2025, 1-20. https://doi.org/10.1007/s11227-024-06691-9				Jo
Chang Liu, Xue-Feng Feng, Feng Li, Qing-Long Xian, Zhen-Hong Jia, Yu-Hang Wang, Zong-Dong Du				Au

AI	Transformer			44
Learning Confidence Measure with Transformer in Stereo Matching				Ti
Pattern Recognition, 157, 2025, 110876 https://doi.org/10.1016/j.patcog.2024.110876				Jo
Jini Yang, Minjung Yoo, Jaehoon Cho, Sunok Kim				Au

AI	Transformer			45
Mix-layers semantic extraction and multi-scale aggregation transformer for semantic segmentation				Ti
Complex & Intelligent Systems, 11, 2025, 36 https://doi.org/10.1007/s40747-024-01650-6				Jo
Tianping Li, Xiaolong Yang, Zhenyi Zhang, Zhaotong Cui, Zhou Maoxia				Au

AI	Transformer			46

Explainable Security Requirements Classification Through Transformer Models	Ti
Future Internet, 17, 2025, 15 https://doi.org/10.3390/fi17010015	Jo
Luca Petrillo, Fabio Martinelli, Antonella Santone and Francesco Mercaldo	Au

AI	Transformer			47
MSCPNet: A Multi-Scale Convolutional Pooling Network for Maize Disease Classification				Ti
IEEE Access, 13, 2025, 11423-11446 doi: 10.1109/ACCESS.2024.3524729				Jo
Mehdhar S. A. M. Al-Gaashani, Reem Alkanhel, Muthana Ali Salem Ali, Mohammed Saleh Ali Muthanna, Ahmed Aziz, Ammar Muthanna				Au

AI	Transformer			48
Multimodal transformer for early alarm prediction				Ti
Engineering Applications of Artificial Intelligence, 139, 2025, 109643 https://doi.org/10.1016/j.engappai.2024.109643				Jo
Nika Strem, Devendra Singh Dhami, Benedikt Schmidt, Kristian Kersting				Au

AI	Transformer			49
MITD-Net: Multi-scale iterative tamper detection network for image manipulation localization				Ti
Digital Signal Processing, 157, 2025, 104901. https://doi.org/10.1016/j.dsp.2024.104901				Jo
Fan Deng, Haibo Yu, Tao Liu, Ruitao Yang				Au

AI	Transformer			50
Seeing the Unseen: A Frequency Prompt Guided Transformer for Image Restoration				Ti
Lecture Notes in Computer Science, 15074. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72640-8_14				Jo
Shihao Zhou, Jinshan Pan, Jinglei Shi, Duosheng Chen, Lishen Qu and Jufeng Yang				Au

AI	Transformer			51
RS-MOCO: A deep learning-based topology-preserving image registration method for cardiac T1 mapping				Ti
Computers in biology and medicine, 184, 2025, 109442 https://doi.org/10.1016/j.compbiomed.2024.109442				Jo
Chiyi Huang, Longwei Sun, Dong Liang, Haifeng Wang, Hongwu Zeng, Yanjie Zhu				Au

AI	Transformer			52
APT: Alarm Prediction Transformer				Ti
Expert Systems with Applications, 261, (2025) 125521 doi.org/10.1016/j.eswa.2024.125521				Jo
Nika Strem, Devendra Singh Dhami, Benedikt Schmidt, Benjamin Klopper, Kristian Kersting				Au

AI	Transformer			53
Deep reinforcement learning-based spatio-temporal graph neural network for solving job shop scheduling problem				Ti
Evolutionary Intelligence, 18, 6, 2025 https://doi.org/10.1007/s12065-024-00989-6				Jo
Goytom Gebreyesus, Getu Fellek, Ahmed Farid, Sicheng Hou, Shigeru Fujimura and Osamu Yoshie				Au

AI	Transformer			54
FastPCI: Motion-Structure Guided Fast Point Cloud Frame Interpolation				Ti
Lecture Notes in Computer Science, Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72904-1_15				Jo
Tianyu Zhang, Guocheng Qian, Jin Xie and Jian Yang				Au

AI	Transformer			55
Image depth estimation assisted by multi-view projection				Ti
Complex & Intelligent Systems, 11, 66, 2025 https://doi.org/10.1007/s40747-024-01688-6				Jo
Liman Liu, Jinshan Tian, Guansheng Luo, Siyuan Xu, Chen Zhang, Huaifei Hu and Wenbing Tao				Au

AI	Transformer			56
Realistic Human Motion Generation with Cross-Diffusion Models arXiv:2312.10993v3 [cs.CV] 5 Aug 2024				Ti
Lecture Notes in Computer Science, 115078, Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72661-3_20				Jo
Zeping Ren, Shaoli Huang and Xiu Li				Au

AI	Transformer			57
Semi-Supervised Video Desnowing Network via Temporal Decoupling Experts and Distribution-Driven Contrastive Regularization				Ti
Lecture Notes in Computer Science, 15068. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72684-2_5				Jo

Hongtao Wu, Yijun Yang, Angelica I. Aviles-Rivero, Jingjing Ren, Sixiang Chen, Haoyu Chen and Lei Zhu	Au

AI	Transformer			58
Fast Encoding and Decoding for Implicit Video Representation				Ti
Lecture Notes in Computer Science, 15097. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72933-1_23				Jo
Hao Chen, Saining Xie, Ser-Nam Lim and Abhinav Shrivastava				Au

AI	Transformer			59
MSNet: A novel network with comprehensive multiscale feature integration for gastric cancer and colon polyp segmentation				Ti
Signal, Image and Video Processing, 19, 2025, 1-11. https://doi.org/10.1007/s11760-024-03594-3				Jo
Dongzhi He, Chenxi Li, Zeyuan Ma and Yunqi Li				Au

AI	Transformer			60
AutoFuse: Automatic Fusion Networks for Deformable Medical Image Registration				Ti
Pattern Recognition, 161, 2025, 111338 doi.org/10.1016/j.patcog.2024.111338				Jo
Mingyuan Meng, Michael Fulham, Dagan Feng, Lei Bi, Jinman Kim				Au

AI	Transformer			61
Underwater Variable Zoom: Depth-Guided Perception Network for Underwater Image Enhancement				Ti
Expert Systems with Applications, 259, 2025, 125350 https://doi.org/10.1016/j.eswa.2024.125350				Jo
Zhixiong Huang, Xinying Wang, Chengpei Xu, Jinjiang Li, Lin Feng				Au

AI	Transformer			62
Click Prompt Learning with Optimal Transport for Interactive Segmentation				Ti
Lecture Notes in Computer Science, 15091, Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73414-4_6				Jo
Jie Liu, Haochen Wang, Wenzhe Yin, Jan-Jakob Sonke and Efstratios Gavves				Au

AI	Transformer			63

Sliding-Window Dissimilarity Cross-Attention for Near-Real-Time Building Change Detection	Ti
Remote Sens., 17, 2025, 135. https://doi.org/10.3390/rs17010135	Jo
Wen Lu and Minh Nguyen	Au

AI	Transformer			64
NN2ViT: Neural Networks and Vision Transformers based approach for Visual Anomaly Detection in Industrial Images				Ti
Neurocomputing, 615, 2025, 128845 https://doi.org/10.1016/j.neucom.2024.128845				Jo
Junaid Abdul Wahid, Muhammad Ayoub, Mingliang Xu, Xiaoheng Jiang, Lei Shi, Shabir Hussain				Au

AI	Transformer			65
OneRestore: A Universal Restoration Framework for Composite Degradation				Ti
Lecture Notes in Computer Science, 15077. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72655-2_15				Jo
Yu Guo, Yuan Gao, Yuxu Lu, Huilin Zhu, Ryan Wen Liu and Shengfeng He				Au

AI	Transformer			66
Forest2Seq: Revitalizing Order Prior for Sequential Indoor Scene Synthesis				Ti
Lecture Notes in Computer Science, 15083. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72698-9_15				Jo
Qi Sun, Hang Zhou, Wengang Zhou, Li Li and Houqiang Li				Au

AI	Transformer			67
WeConvene: Learned Image Compression with Wavelet-Domain Convolution and Entropy Model				Ti
Lecture Notes in Computer Science, 15108. Springer, Cham. 2024 https://doi.org/10.1007/978-3-031-72973-7_3				Jo
Haisheng Fu, Jie Liang, Zhenman Fang, Jingning Han, Feng Liang and Guohe Zhang				Au

AI	Transformer			68
AI-enhanced interview simulation in the metaverse: Transforming professional skills training through VR and generative conversational AI				Ti
Computers and Education: Artificial Intelligence, 8, 2025, 100347 https://doi.org/10.1016/j.caeai.2024.100347				Jo
Abdullah Bin Nofal, Hassan Ali, Muhammad Hadi, Aizaz Ahmad, Adnan Qayyum, Aditya Johri, Ala Al-Fuqaha, Junaid Qadir				Au

AI	Transformer			69
Less is More: Token Context-aware Learning for Object Tracking				Ti
https://doi.org/10.48550/arXiv.2501.00758				Jo
Chenlong Xu, Bineng Zhong, Qihua Liang, Yaozong Zheng, Guorong Li, Shuxiang Song				Au

AI	Transformer			70
A survey on deep learning for polyp segmentation: techniques, challenges and future trends				Ti
Visual Intelligence, 3, 2025 https://doi.org/10.1007/s44267-024-00071-w				Jo
Jiaxin Mei, Tao Zhou, Kaiwen Huang, Yizhe Zhang, Yi Zhou, Ye Wu and Huazhu Fu				Au

AI	Transformer			71
RBMDC-Net: Effective jaw cyst segmentation network using residual bottleneck and multiscale dilated convolution				Ti
IEEE Access, 13, 2025, 3683-3695 doi: 10.1109/ACCESS.2024.3525408.				Jo
Huixia Zheng, Xiaoliang Jiang, Xu Xu, Zhenfei Yuan				Au

AI	Transformer			72
RISurConv: Rotation Invariant Surface Attention-Augmented Convolutions for 3D Point Cloud Classification and Segmentation				Ti
Lecture Notes in Computer Science, 15086. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73390-1_6				Jo
Zhiyuan Zhang, Licheng Yang and Zhiyu Xiang				Au

AI	Transformer			73
Graph-Neural-Network-Based Transaction Link Prediction Method for Public Blockchain in Heterogeneous Information Networks,				Ti
Blockchain: Research and Applications, 2025, 100265, https://doi.org/10.1016/j.bcra.2024.100265				Jo
Z. Zhao, J. Wang and J. Wei				Au

AI	Transformer			74
Lane Graph as Path: Continuity-preserving Path-wise Modeling for Online Lane Graph Construction				Ti
Lecture Notes in Computer Science, 15102. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72784-9_19				Jo

Bencheng Liao, Shaoyu Chen, Bo Jiang, Tianheng Cheng, Qian Zhang, Wenyu Liu, Chang Huang and Xinggang Wang	Au

AI	Transformer			75
S-JEPA: A Joint Embedding Predictive Architecture for Skeletal Action Recognition				Ti
Lecture Notes in Computer Science, 15090. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73411-3_21				Jo
Mohamed Abdelfattah and Alexandre Alahi				Au

AI	Transformer			76
Offline prompt reinforcement learning method based on feature extraction				Ti
PeerJ Computer Science,11, 2025, e2490 https://doi.org/10.7717/peerj-cs.2490				Jo
Tianlei Yao, Xiliang Chen, Yi Yao, Weiye Huang and Zhaoyang Chen				Au

AI	Transformer			77
Masked Motion Prediction with Semantic Contrast for Point Cloud Sequence Learning				Ti
Lecture Notes in Computer Science,15134. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73116-7_24				Jo
Yuehui Han, Can Xu, Rui Xu, Jianjun Qian and Jin Xie				Au

AI	Transformer			78
LLM-based Framework for Bearing Fault Diagnosis				Ti
Mechanical Systems and Signal Processing, 224, 2025, 112127 https://doi.org/10.1016/j.ymssp.2024.112127				Jo
Laifa Tao, Haifei Liu, Guoao Ning, Wenyan Cao, Bohao Huang, Chen Lu				Au

AI	Transformer			79
EmoNet: Deep Attentional Recurrent CNN for X (formerly Twitter) Emotion classification.				Ti
Digital Object Identifier: 10.1109/ACCESS.2017				Jo
Md. Shakil Hossain , Md. Mithun Hossain, Md. Shakhawat Hossain, M. F. Mridha, Mejdl Safran, Sultan Alfarhood				Au

AI	Transformer			80
REDIR: Refocus-free Event-based De-occlusion Image Reconstruction				Ti
Lecture Notes in Computer Science, 15138. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72989-8_24				Jo
Qi Guo, Hailong Shi, Huan Li, Jinsheng Xiao, and Xingyu Gao				Au

AI	Transformer			81
Efficient Frequency-Domain Image Deraining with Contrastive Regularization				Ti
Lecture Notes in Computer Science, 15099. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72940-9_14				Jo
Ning Gao, Xingyu Jiang, Xiuhui Zhang and Yue Deng				Au

AI	Transformer			82
Self-Prior Guided Mamba-UNet Networks for Medical Image Super-Resolution				Ti
Lecture Notes in Computer Science, 15311. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-78195-7_11				Jo
Zexin Ji, Beiji Zou, Xiaoyan Kui, Pierre Vera and Su Ruan				Au

AI	Transformer			83
Dolfin: Diffusion Layout Transformers Without Autoencoder				Ti
Lecture Notes in Computer Science, vol 15109. Springer, Cham. https://doi.org/10.1007/978-3-031-72983-6_19				Jo
Yilin Wang, Zeyuan Chen, Liangjun Zhong, Zheng Ding and Zhuowen Tu				Au

AI	Transformer			84
Few-shot Remote Sensing Imagery Recognition with Compositionality Inductive Bias in Hierarchical Representation Space				Ti
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing 2025. DOI 10.1109/JSTARS.2024.3524573				Jo
Shichao Zhou, Zhuowei Wang, Zekai Zhang, Wenzheng Wang, Yingrui Zhao and Yunpu Zhang				Au

AI	Transformer			85
GMT: Enhancing Generalizable Neural Rendering via Geometry-Driven Multi-Reference Texture Transfer				Ti
Lecture Notes in Computer Science, 15113, Springer, Cham, 2024.				Jo

https://doi.org/10.1007/978-3-031-73001-6_16	
Youngho Yoon, Hyun-Kurl Jang and Kuk-Jin Yoon	Au

AI	Transformer			86
GS-Pose: Category-Level Object Pose Estimation via Geometric and Semantic Correspondence				Ti
Lecture Notes in Computer Science, 15085, Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73383-3_7				Jo
Pengyuan Wang, Takuya Ikeda, Robert Lee and Koichi Nishiwak				Au

AI	Transformer			87
DeepFilter: An Instrumental Baseline for Accurate and Efficient Process Monitoring				Ti
https://doi.org/10.48550/arXiv.2501.01342				Jo
Hao Wang, Zhichao Chen, Licheng Pan, Xiaoyu Jiang, Yichen Song, Qunshan He, Xinggao Liu				Au

AI	Transformer			88
AdaGlimpse: Active Visual Exploration with Arbitrary Glimpse Position and Scale				Ti
Lecture Notes in Computer Science, 15079. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-72664-4_7				Jo
Adam Pardyl, Michał Wronka, Maciej Wołczyk, Kamil Adamczewski, Tomasz Trzciński and Bartosz Zieliński				Au

AI	Transformer			89
CSFNet: A novel counting network based on context features and multi-scale information				Ti
Multimedia Systems, 31, 1, 2025, 1-21. DOI: https://doi.org/10.21203/rs.3.rs-4584637/v1				Jo
Liyan Xiong, Zhida Li, Xiaohui Huang, Heng Wang				Au

AI	Transformer			90
Computer-aided diagnosis of hepatic cystic echinococcosis based on deep transfer learning features from ultrasound images				Ti
Scientific Reports, 15, 2025, 607 doi.org/10.1038/s41598-024-85004-9				Jo
Miao Wu□, Chuanbo Yan and Gan Sen				Au

AI	Transformer			91
Knowledge from Large-Scale Protein Contact Prediction Models Can Be Transferred to the Data-Scarce RNA Contact Prediction Task				Ti
International Conference on Pattern Recognition. Springer, Cham, 2025				Jo
Yiren Jian, Chongyang Gao, Chen Zeng, Yunjie Zhao, Soroush Vosoughi				Au

AI	Transformer			92
FasterSTS: A Faster Spatio-Temporal Synchronous Graph Convolutional Networks for Traffic flow Forecasting				Ti
https://doi.org/10.48550/arXiv.2501.00756				Jo
Ben-Ao Dai, Nengchao Lyu, Yongchao Miao				Au

AI	Transformer			93
RP-Net: A Robust Polar Transformation Network for Rotation-Invariant Face Detection				Ti
Pattern Recognition, 158, 2025, 111044 https://doi.org/10.1016/j.patcog.2024.111044				Jo
Hathai Kaewkorn, Lifang Zhou, Weisheng Li				Au

AI	Transformer			94
DMANet: Dual-modality alignment network for visible–infrared person re-identification				Ti
Pattern Recognition, 157, 2025, 110859 https://doi.org/10.1016/j.patcog.2024.110859				Jo
Xu Cheng, Shuya Deng, Hao Yu, Guoying Zhao				Au

AI	Transformer			95
MoEAD: A Parameter-efficient Model for Multi-class Anomaly Detection				Ti
Lecture Notes in Computer Science, 15143. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73013-9_20				Jo
Shiyuan Meng, Wenchao Meng, Qihang Zhou, Shizhong Li, Weiye Hou and Shibo He				Au

AI	Transformer			96
Data-centric explainable artificial intelligence techniques for cyber-attack detection in microgrid networks				Ti
Energy Reports, 13, 2025, 217–229 doi.org/10.1016/j.egyr.2024.11.075				Jo

Rohit Trivedi, Sandipan Patra, Shafi Khadem	Au

AI	Transformer			97
Cvt-occ: Cost volume temporal fusion for 3d occupancy prediction				Ti
European Conference on Computer Vision. Cham: Springer Nature Switzerland, 2024 https://doi.org/10.1007/978-3-031-73464-9_23				Jo
Zhangchen Ye, Tao Jiang, Chenfeng Xu, Yiming Li and Hang Zhao				Au

AI	Transformer			98
Phoneme Recognition for Pronunciation Improvement				Ti
digitalcommons. unomaha.edu., 2025.				Jo
Matthew Heywood				Au

AI	Transformer			99
Dual-Stage AI Model for Enhanced CT Imaging: Precision Segmentation of Kidney and Tumors				Ti
Tomography, 11, 2025, 3 https://doi.org/10.3390/tomography11010003				Jo
Karunanayake, N., Lu, L., Yang, H., Geng, P., Akin, O., Furberg, H., Schwartz, L. H., and Zhao, B				Au

AI	Transformer			100
Latent Diffusion Prior Enhanced Deep Unfolding for Snapshot Spectral Compressive Imaging				Ti
Lecture Notes in Computer Science, 15091. Springer, Cham. 2025 https://doi.org/10.1007/978-3-031-73414-4_10				Jo
Zongliang Wu, Ruiying Lu, Ying Fu and Xin Yuan				Au

AI	Transformer			101
PCNet: a human pose compensation network based on incremental learning for sports actions estimation				Ti
Complex & Intelligent Systems, 2025, 11:17				Jo
Jia-Hong Jiang, Nan Xia				Au

AI	Transformer			102
MM-HiFuse: multi-modal multi-task hierarchical feature fusion for esophagus cancer staging and differentiation classification				Ti
Complex & Intelligent Systems, 2025, 11:113 https://doi.org/10.1007/s40747-024-01708-5				Jo

Xiangzuo Huo, Shengwei Tian, Long Yu, Wendong Zhang, Aolun Li, Qimeng Yang, Jinmiao Song	Au

AI	Transformer			103
E3V-K5: An Authentic Benchmark for Redefining Video-Based Energy Expenditure Estimation				Ti
Computer Vision – ECCV 2024. ECCV 2024. Lecture Notes in Computer Science, vol 15093. Springer, Cham. https://doi.org/10.1007/978-3-031-72761-0_24				Jo
Shengxuming Zhang, Lei Jin, Yifan Wang, Xinyu Wang, Xu Wen, Zunlei Feng and Mingli Song				Au

AI	Transformer			104
Minimizing energy usage in multi-point manufacturing: a dimensional transfer learning strategy				Ti
Journal of Computational Design and Engineering, 2025, 12, 15–33 DOI: 10.1093/jcde/qwae106				Jo
Jie Liu, Hwa Jen Yap and Anis Salwa Mohd Khairuddin				Au

AI	Transformer	Traveling Salesman Problem		105
Solving Method of Traveling Salesman Problem Based on Performer Graph Self-attention Mechanism				Ti
doi.org/10.21203/rs.3.rs-4778453/v1				Jo
Li Han, Qianqian Duan				Au

AI	Transformer			106
Automatic X-ray teeth segmentation with grouped attention				Ti
Scientific Reports, 2025, 15:64 https://doi.org/10.1038/s41598-024-84629-0				Jo
Wenjin Zhong, XiaoXiao Ren and HanWen Zhang				Au

AI	Transformer			107
EEG-based Mental Imagery Task Adaptation via Ensemble of Weight-Decomposed Low-Rank Adapters				Ti
arXiv:2412.17818v1 [eess.SP] 8 Dec 2024				Jo
Taveena Lotey, Aman Verma and Partha Pratim Roy				Au

AI	Transformer			108
TransfoRhythm: A Transformer Architecture Conductive to Blood Pressure Estimation ia Solo PPG Signal Capturing				Ti

arXiv:2404.15352v1 [eess.SP] 15 Apr 2024	Jo
Amir Arjomand, Amin Boudesh, Farnoush Bayatmakou, Kenneth B. Kent1, and Arash Mohammadi	Au

AI	Transformer			109
EfficientTransformer: A Dynamic Anomaly Detection Model for Industrial Control Networks				Ti
				Jo
Jinyang Liu,Guogang Wang, Xuejun Zong,Bowei Ning, and Kan He				Au

AI	Transformer			110
MANIKIN: Biomechanically Accurate Neural Inverse Kinematics for Human Motion Estimation				Ti
European Conference on Computer Vision. Cham: Springer Nature Switzerland, 2024. https://github.com/eth-siplab/MANIKIN				Jo
Jiaxi Jiang, Paul Streli, Xuejing Luo, Christoph Gebhardt, Christian Holz				Au

AI	Transformer			111
GOEmbed: Gradient Origin Embeddings for Representation Agnostic 3D Feature Learning				Ti
Lecture notes in computer science, 2024, 454–472. https://doi.org/10.1007/978-3-031-73223-2_25.				Jo
Animesh Karnewar, Roman Shapovalov, Tom Monnier, Andrea Vedaldi, Niloy J. Mitra, and David Novotny				Au

AI	Transformer			112
Time Craft: Navigate Weakly-Supervised Temporal Grounded Video Question Answering via Bi-directional Reasoning				Ti
European Conference on Computer Vision. Cham: Springer Nature Switzerland, 2024.				Jo
Huabin Liu, Xiao Ma, Cheng Zhong, Yang Zhang, and Weiyao Lin				Au

AI	Transformer			113
Iterative Cybercrime Risk and Response of Generative Artificial Intelligence Technology Based on Reinforcement Learning				Ti
Computer-Aided Design & Applications, 22(S9), 2025, 121-134 http://www.cad-journal.net				Jo
Ye Huang, Yanwei Xu and Juan Luo				Au

AI	Transformer			114

HirMTL: Hierarchical Multi-Task Learning for Dense Scene Understanding	Ti
Neural Networks, 181, 2025, 106854.	Jo
Huilan Luo, Weixia Hu, Yixiao Wei, Jianlong He and Minghao	Au

AI	Transformer			115
Preventing Catastrophic Forgetting through Memory Networks in Continuous Detection				Ti
arXiv:2403.14797v2 [cs.CV] 15 Jul 2024				Jo
Gaurav Bhatt, James Ross and Leonid Sigal				Au

AI	Transformer			116
LayoutFlow: Flow Matching for Layout Generation				Ti
arXiv:2403.18187v2 [cs.CV] 13 Jul 2024				Jo
Julian Jorge Andrade Guerreiro, Naoto Inoue, Kento Masui, Mayu Otani, and Hideki Nakayama				Au

AI	Transformer			117
Predicting the Next Action by Modeling the Abstract Goal				Ti
arXiv:2209.05044v5 [cs.CV] 21 Aug 2024				Jo
Debaditya Roy and Basura Fernando				Au

AI	Transformer			118
A cross-attention-based deep learning approach for predicting functional stroke outcomes using 4D CTP imaging and clinical metadata				Ti
Medical Image Analysis, 99, 2025, 103381 doi.org/10.1016/j.media.2024.103381				Jo
Kimberly Amador, Noah Pinel, Anthony J. Winder, Jens Fiehler, Matthias Wilms, Nils D. Forkert				Au

AI	Transformer			119
Learning Atribute Atention and Retrospect Location for Instance Object Navigation				Ti
ACM 1936-1963/2025/1-ART https://doi.org/10.1145/3706423				Jo
Yanwei Zheng, Yaling Li, Changrui Li, Taiqi Zhang, Yifei Zou, Dongxiao Yu				Au

AI	Transformer			120
FinePseudo: Improving Pseudo-Labelling through Temporal-Alignablity for Semi-Supervised Fine-Grained Action Recognition				Ti

arXiv:2409.01448v1 [cs.CV] 2 Sep 2024	Jo
Ishan Rajendrakumar Dave, Mamshad Nayeem Rizve, and Mubarak Shah	Au

AI	Transformer			121
Event-Adapted Video Super-Resolution				Ti
European Conference on Computer Vision. Cham: Springer Nature Switzerland, 2024.				Jo
Zeyu Xiao, Dachun Kai, Yueyi Zhang, Zheng-Jun Zha, Xiaoyan Sun, and Zhiwei Xiong				Au

AI	Transformer			122
Teaching Tailored to Talent: Adverse Weather Restoration via Prompt Pool and Depth-Anything Constraint				Ti
arXiv:2409.15739v1 [cs.CV] 24 Sep 2024				Jo
Sixiang Chen, Tian Ye, Kai Zhang, Zhaohu Xing, Yunlong Lin, Lei Zhu				Au

AI	Transformer			123
GAReT: Cross-view Video Geolocalization with Adapters and Auto-Regressive Transformers				Ti
arXiv:2408.02840v1 [cs.CV] 5 Aug 2024				Jo
Manu S Pillai, Mamshad Nayeem Rizve, and Mubarak Shah				Au

AI	Transformer			124
Self-supervised representation learning for robust fine-grained human hand action recognition in industrial assembly lines				Ti
Machine Vision and Applications, 2025, 36:19 https://doi.org/10.1007/s00138-024-01638-9				Jo
Fabian Sturm, Martin Trat, Rahul Sathiyababu, Harshitha Allipilli, Benjamin Menz, Elke Hergenroether, Melanie Siegel				Au

AI	Transformer			125
Real Viformer: Investigating Attention for Real-World Video Super-Resolution				Ti
arXiv:2407.13987v1 [cs.CV] 19 Jul 2024				Jo
Yuehan Zhang and Angela Yao				Au

AI	Transformer			126
Beyond Words: AuralLLM and SignMST-C for Precise Sign Language Production and Bidirectional Accessibility				Ti

arXiv preprint arXiv:2501.00765 (2025).	Jo
Yulong Li, Yuxuan Zhang, Feilong Tang, Mian Zhou, Zhixiang Lu, Haochen Xue,Yifang Wang, Kang Dangot, Jionglong Su	Au

AI	Transformer			127
Mamba-ND: Selective State Space Modeling for Multi-Dimensional Data				Ti
arXiv:2402.05892v5 [cs.CV] 13 Jul 2024				Jo
Shufan Li, Harkanwar Singh, Aditya Grover				Au

AI	Transformer			128
Comparative Study of Forecasting Methods to Predict the Energy Demand for the Market of Colombia				Ti
International Journal of Energy Economics and Policy, 2025, 15(1), 65-76. DOI: https://doi.org/10.32479/ijeep.17528				Jo
Victor Manuel Vargas-Forero, Diego Fernando Manotas-Duque, Leonardo Trujillo				Au

AI	Transformer			129
DVLO: Deep Visual-LiDAR Odometry with Local-to-Global Feature Fusion and Bi-Directional Structure Alignment				Ti
arXiv:2403.18274v3 [cs.CV] 17 Jul 2024				Jo
Jiuming Liu, Dong Zhuo, Zhiheng Feng, Siting Zhu, Chensheng Peng, Zhe Liu, and Hesheng Wang				Au

AI	Transformer			130
ProtoMed: prototypical networks with auxiliary regularization for few-shot medical image classification				Ti
Image and Vision Computing, 154, 2025, 105337				Jo
Achraf Ouahaba, Olfa Ben Ahmeda				Au

AI	Transformer			131
Deep Learning in Palmprint Recognition-A Comprehensive Survey				Ti
arXiv:2501.01166v1 [cs.CV] 2 Jan 2025				Jo
Chengrui Gao, Ziyuan Yang, Wei Jia, Lu Leng, Bob Zhang, and Andrew Beng Jin Teoh				Au

AI	Transformer			132
Scale-Consistent and Temporally Ensembled Unsupervised Domain Adaptation for Object Detection				Ti
Sensors 2025, 25, 230.				Jo

https://doi.org/10.3390/s25010230	
Lunfeng Guo, Yizhe Zhang, Jiayin Liu, Huajie Liu and Yunwang Li	Au

AI	Transformer			133
R3Design: deep tertiary structure-based RNA sequence design and beyond				Ti
Briefings in Bioinformatics, 2025, 26(1), bbae682 https://doi.org/10.1093/bib/bbae682				Jo
ChengTan, YijieZhang, ZhangyangGao, HanqunCao, SiyuanLi, SiqiMa, Mathieu Blanchette, StanZ.Li				Au

AI	Transformer			134
Learning by Aligning 2D Skeleton Sequences and Multi-Modality Fusion				Ti
arXiv:2305.19480v6 [cs.CV] 9 Jul 2024				Jo
Quoc-Huy Tran, Muhammad Ahmed, Murad Popattia, M. Hassan Ahmed, Andrey Konin, and M. Zeeshan Zia				Au

AI	Transformer			135
Learning Dual-Level Deformable Implicit Representation for Real-World Scale Arbitrary Super-Resolution				Ti
arXiv:2403.10925v2 [cs.CV] 24 Nov 2024				Jo
Zhiheng Li, Muheng Li, Jixuan Fan, Lei Chen, Yansong Tang, Jiwen Lu, and Jie Zhou				Au

AI	Transformer			136
How Green is AutoML for Tabular Data?				Ti
Proceedings of the 28th International Conference on Extending Database Technology (EDBT), 25th March-28th March, 2025, ISBN				Jo
Felix Neutatz, Marius Lindauer, Ziawasch Abedjan				Au

AI	Transformer			137
Multi-relational graph contrastive learning with learnable graph augmentation				Ti
Neural Networks, 181, 2025, 106757 doi.org/10.1016/j.neunet.2024.106757				Jo
Xian Mo, Jun Pang, Binyuan Wan, Rui Tang, Hao Liu, Shuyu Jiang				Au

AI	Transformer			138
Mahalanobis Distance-based Multi-view Optimal Transport for Multi-view Crowd Localization				Ti
arXiv:2409.01726v1 [cs.CV] 3 Sep 2024				Jo

Qi Zhang, Kaiyi Zhang, Antoni B. Chan, and Hui Huang	Au

AI	Transformer			139
Hierarchical Gaussian Mixture Normalizing Flow Modeling for Unified Anomaly Detection				Ti
arXiv:2403.13349v2 [cs.LG] 4 Jul 2024				Jo
Xincheng Yao1, Ruoqi Li1, Zefeng Qian1, Lu Wang3, and Chongyang Zhang1,2				Au

AI	Transformer			140
Individual contribution based spatial-temporal attention on skeleton sequences for human interaction recognition				Ti
IEEE. Access, 11, 2024, P1-12				Jo
Xing Liu, Bo Gao				Au

AI	Transformer			141
Continuous sign language recognition enhanced by dynamic attention and maximum backtracking probability decoding				Ti
Signal, Image and Video Processing 19, 2025, 141				Jo
Sije Xiong, Chunlong Zou, Juntong Yun, Du Jiang, Li Huang, Ying Liu, and Yuanmin Xie				Au

AI	Transformer			142
Integer-Valued Training and Spike-Driven Inference Spiking Neural Network for High-performance and Energy-efficient Object Detection				Ti
arXiv:2407.20708v3 [cs.AI] 5 Aug 2024				Jo
Xinhao Luo, Man Yao, Yuhong Chou, Bo Xu, and Guoqi Li				Au

AI	Transformer			143
Learning data association for multi-object tracking using only coordinates				Ti
Pattern Recognition, 160, 2025, 111169 doi.org/10.1016/j.patcog.2024.111169				Jo
Mehdi Miah, Guillaume-Alexandre Bilodeau, Nicolas Saunier				Au

AI	Transformer			144
Classification of Brain Tumor based on Machine Learning Algorithms: A Review				Ti
Journal of Applied Science and Technology Trends, 6, 2025, 1-15				Jo
Omran Ali Azeez, Adnan Mohsin Abdulazeez				Au

AI	Transformer			145
A HEART for the environment: Transformer-Based Spatiotemporal Modeling for Air Quality Prediction				Ti
arXiv:2502.19042v1 [cs.LG] 26 Feb 2025				Jo
Norbert Bodendorfer				Au

AI	Transformer			146
Transformer Neural Networks: A Step-by-Step Breakdown Artificial Intelligence Data Science Expert Contributors				Ti
BuiltIn, 2022				Jo
Utkarsh Ankit				Au

AI	Transformer			147
Piktor-O-Bot: Integrated image processing algorithms for portrait drawing robot applications				Ti
Measurement: Sensors, 2025, 101592 https://doi.org/10.1016/j.measen.2024.101592				Jo
Anh Tuan Hoang, János Csempesz, Tamás Cserteg, Zsolt János Viharos				Au

AI	Transformer			148
A Novel Water Quality Prediction Model Based on BiMKANsD former				Ti
Environ. Sci.: Water Res. Technol., 2025, Accepted Manuscript https://doi.org/10.1039/D4EW00883A				Jo
Tichen Huang, Yuyan Jiang, Rumeijiang Gan and Fuyu Wang				Au

AI	Transformer			149
Event-Adapted Video Super-Resolution				Ti
European Conference on Computer Vision. Cham: Springer Nature Switzerland, 2024.				Jo
Zeyu Xiao, Dachun Kai, Yueyi Zhang, Zheng-Jun Zha, Xiaoyan Sun, and Zhiwei Xiong				Au

AI	Transformer			150
Hybrid Transformer with Multi-level Fusion for Multimodal Knowledge Graph Completion				Ti
arXiv:2205.02357v5 [cs.CL] 18 Sep 2023				Jo
Xiang Chen, Ningyu Zhang, Lei Li, Shumin Deng, Chuanqi Tan, Changliang Xu, Luo Si, Huajun Chen				Au

AI	Transformer			151
Transformer Choice Net: A Transformer Neural Network for Choice Prediction				Ti
arXiv preprint arXiv:2310.08716 (2023)				Jo
Hanzhao Wang Xiaocheng Li Kalyan Talluri				Au

AI	Transformer			152
Pinnsformer: A transformer-based framework for physics-informed neural networks				Ti
arXiv preprint arXiv:2307.11833 (2023)				Jo
Zhiyuan Zhao, Xueying Ding, B. Aditya Prakash				Au

AI	Transformer			153
SwinE-Net: hybrid deep learning approach to novel polyp segmentation using convolutional neural network and Swin Transformer				Ti
Journal of Computational Design and Engineering, 2022, 9(2), 616–632 https://doi.org/10.1093/jcde/qwac018				Jo
Kyeong-Beom Park and Jae Yeol Lee				Au

AI	Transformer			154
N-ODE Transformer: A Depth-Adaptive Variant of the Transformer Using Neural Ordinary Differential Equations				Ti
arXiv:2010.11358v1 [cs.LG] 22 Oct 2020				Jo
Aaron Baier-Reinio and Hans De Sterck				Au

AI	Transformer			155
Transformers Get Stable: An End-to-End Signal Propagation Theory for Language Models				Ti
arXiv:2403.09635v2 [cs.CL] 18 Jul 2024				Jo
Akhil Kedia, Mohd Abbas Zaidi, Sushil Khyalia, JungHo Jung, Harshith Goka ,Haejun Lee				Au