Dr. Koteswar Rao JERRIPOTHULA, Assistant Professor, IIT Kanpur

CONTACT

Address: ACES 302, ACES Building, EE Department, IIT Kanpur, Kanpur, Uttar Pradesh, India - 208016.
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Weblinks: Website, LinkedIn, Google Scholar, dblp, Scopus, WoS & IEEE Xplore

INTERESTS

Computer Vision | Artificial Intelligence | Multimedia | Signal Processing

EXPERIENCE

IIT Kanpur, Uttar Pradesh, India, Jan. 2024 - Present

Assistant Professor (Grade I), EE Department

IIIT-Delhi, New Delhi, India, Feb. 2020 - Jan. 2024

Assistant Professor, CSE Department

Graphic Era, Dehradun, India, Jan. 2017 - Jan. 2020

Assistant Professor, Faculty of Engineering and Technology

Advanced Digital Sciences Center (ADSC), Singapore, July 2016 - Nov. 2016

Junior Research Assistant, Visual Modeling & Analytics Team

Lenskart Solutions Pvt. Ltd., New Delhi, India, June 2012 - July 2013

Software Developer, TechOps Team

EDUCATION

Nanyang Technological University (NTU), Singapore, Aug. 2013 - June 2017

PhD, Interdisciplinary Graduate School

- *Advisors*: Jianfei Cai & Junsong Yuan
- *Thesis*: Co-saliency Based Visual Object Co-segmentation & Co-localization
- *Publications*: 6 (incl. CVPR, ECCV & T-MM)

Indian Institute of Technology Roorkee (IIT Roorkee), Aug'08 - May'12

BTech, Department of Electrical Engineering

- *Advisor*: Maheshwari, R. P.
- *Thesis*: Image Segmentation using Advanced Fuzzy c-means Algorithm
- *Thesis Grade*: A+ (topmost grade)

Mahathi Junior College, India, Apr. 2006 - July 2008

MPC group, Intermediate (Classes XI-XII)

- *Board*: Andhra Pradesh Board of Intermediate Education (APBIE)
- *Qualified*: IIT-JEE (AIR-1221), BITSAT and AIEEE 2008

Kendriya Vidyalaya, India, Apr. 1996 - Mar. 2006

English medium, School (Classes I-X)

- *Board*: Central Board of Secondary Education (CBSE)
- *Qualified*: KVS-JMO (AIR-35)

JOURNAL ARTICLES

[J6] K. R. Jerripothula, P. Mukherjee, J. Cai, S. Lu, and J. Yuan, "AppFuse: An Appearance Fusion Framework for Saliency Cues," ***IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)***, 2022. [***JCR Q1***]

[J5] K. R. Jerripothula, J. Cai, J. Lu, and J. Yuan, "Image Co-skeletonization via Co-segmentation," ***IEEE Transactions on Image Processing (T-IP)***, 2021. [***JCR Q1***]

[J4] K. R. Jerripothula, A. Rai†, K. Garg†, and Y. S. Rautela†, "Feature-level Rating System using Customer Reviews and Review Votes," ***IEEE Transactions on Computational Social Systems (T-CSS)***, 2020. [***JCR Q1***]

[J3] K. R. Jerripothula, J. Cai, and J. Yuan, "Efficient Video Object Co-localization with Co-saliency Activated Tracklets," ***IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)***, 2019. [***JCR Q1***]

[J2] K. R. Jerripothula, J. Cai, and J. Yuan, "Quality-guided Fusion-based Co-saliency Estimation for Image Co-segmentation and Co-localization," ***IEEE Transactions on Multimedia (T-MM)***, 2018. [***JCR Q1***]

[J1] K. R. Jerripothula, J. Cai, and J. Yuan, "Image Co-segmentation via Saliency Co-fusion," ***IEEE Transactions on Multimedia (T-MM)***, 2016. [***JCR Q1***]

SELECTED (A*/A) **CONFERENCE PAPERS**

[A5] Saurabh Yadav† and K. R. Jerripothula, "FCCNs: Fully Complex-valued Convolutional Networks using Complex-valued Color Model and Loss Function," ***IEEE/CVF International Conference on Computer Vision (ICCV)***, 2023. [***CORE A****]

[A4] Shreyansh Jain† and K. R. Jerripothula, "Federated Learning for Commercial Image Sources," ***IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)***, 2023. [***CORE A***]

[A3] K. R. Jerripothula and P. Mukherjee, "ASOC: Adaptive Self-aware Object Co-localization," ***IEEE International Conference on Multimedia and Expo (ICME)***, 2021. [***CORE A***]

[A2] K. R. Jerripothula, J. Cai, J. Lu, and J. Yuan, "Object Co-skeletonization with Co-segmentation," ***IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)***, 2017. [***CORE A****]

[A1] K. R. Jerripothula, J. Cai, and J. Yuan, "CATS: Co-saliency Activated Tracklet Selection for Video Co-localization," ***European Conference on Computer Vision (ECCV)***, 2016. [***CORE A****]

OTHER **CONFERENCE & WORKSHOP PAPERS**

[C11] V. Vats† and K. R. Jerripothula, "Adversarial Examples with Specular Highlights," ***IEEE/CVF International Conference on Computer Vision Workshops (ICCVW)***, 2023. [***h5-index 66***][***#34*** (Research.com [CS])]

[C10] A. S. Patlan† and K. R. Jerripothula, "DASA: Domain Adaptation via Saliency Augmentation," 25^{th} ***IEEE Workshop on Multimedia Signal Processing (MMSP)***, 2023. [***GGS B***]

[C09] S. A. Ansari†, K. R. Jerripothula, P. Nagpal†, and A. Mittal, "Eye-focused Detection of Bell's Palsy in Videos," 34^{th} ***Canadian Artificial Intelligence Conference (CAAI)***, 2021. [***ERA B***]

† indicates my student.

[C08] K. R. Jerripothula, S. A. Ansari†, and R. Nijhawan, "A Vision-based Solution for Track Misalignment Detection," 34^{th} ***SIBGRAPI Conference on Graphics, Patterns and Images (SIBGRAPI)***, 2021. [***GGS B-***][***#7*** (GSM Graphics)]

[C07] K. R. Jerripothula, S. K. Shukla†, S. Jain†, and S. Singh†, "Fruit Maturity Recognition from Agricultural, Market and Automation Perspectives," 47^{th} ***Annual Conference of the IEEE Industrial Electronics Society (IECON)***, 2021. [***h5-index 28***][***#52*** (Research.com [EEE])]

[C06] H. Chhabra† and K. R. Jerripothula, "Comprehensive Saliency Fusion for Object Co-segmentation," 23^{rd} ***IEEE International Symposium on Multimedia (ISM)***, 2021. [***CORE C***]

[C05] A. Gautam† and K. R. Jerripothula, "SGG: Spinbot, Grammarly and GloVe based Fake News Detection System," ***IEEE International Conference on Multimedia Big Data (BigMM)***, 2020. [***#3*** (by citations)][***h5-index 22***]

[C04] D. Goyal†, K. R. Jerripothula, and A. Mittal, "Detection of Gait Abnormalities caused by Neurological Disorders," 22^{nd} ***IEEE Workshop on Multimedia Signal Processing (MMSP)***, 2020. [***GGS B***]

[C03] K. R. Jerripothula, J. Cai, and J. Yuan,"QCCE: Quality Constrained Co-saliency Estimation for Common Object Detection," ***IEEE Visual Communications and Image Processing (VCIP)***, 2015. [***GGS B-***]

[C02] K. R. Jerripothula, J. Cai, and J. Yuan, "Group Saliency Propagation for Large Scale and Quick Image Co-segmentation," ***IEEE International Conference on Image Processing (ICIP)***, 2015. [***GGS A-***][***CORE B***]

[C01] K. R. Jerripothula, J. Cai, F. Meng, and J. Yuan, "Automatic Image Co-segmentation using Geometric Mean Saliency," ***IEEE International Conference on Image Processing (ICIP)***, 2014. [***Top 10% Paper***][***GGS A-***][***CORE B***]

FUNDING

K. R. Jerripothula, "Visual Saliency and Enhancements," *Adeia Inc.*, 2022-23. [US$ 15,000 (Rs. 12.2 Lacs)]

S. Anand and K. R. Jerripothula, "Artificial Intelligence for Monitoring of Wildlife for Conservation (AIM–Wildlife Conservation)," *Core Research Grant (CRG), Science and Engineering Research Board (SERB), GoI*, 2021-24. [Rs. 61.3 Lacs]

K. R. Jerripothula, "Semi-supervised, Weakly-supervised, or Self-supervised Semantic Object Detection and Segmentation for Smart-city Applications," *Initiation Research Grant, IIIT-Delhi*, 2020-21. [Rs. 5 Lacs]

V. Kumar and K. R. Jerripothula, "Advanced Programming Module," *CSEDU, IIIT-Delhi*, 2022-23. [Rs. 1.4 Lacs]

K. R. Jerripothula, "Image Quality Assessment and Improvement," *Vehant Technologies*, 2022-24. [Rs. 10 Lacs]

INVITED TALKS

"Vision-based Diagnosis of Neurological Disorders"
AICTE ATAL FDP on Healthcare Data Analytics using Artificial Intelligence and Machine Learning, Dec. 2021, COEP, India. [Video Link]

"Deep Learning"
AICTE ATAL FDP on Artificial Intelligence, Oct. 2020, NIT Allahabad, India. [Video Link]

AWARDS

Outstanding Researcher Award, Graphic Era
For 2017-18 academic year.

Top 10% Paper Award, IEEE ICIP 2014
Koteswar Jerripothula, Jianfei Cai, Fanman Meng, and Junsong Yuan, "Automatic Image Co-Segmentation Using Geometric Mean Saliency"

NTU Research Scholarship
From Nanyang Technological University, Singapore, for the period 2013-2017.

Institute Merit-cum-means Scholarship
From Indian Institite of Technology Roorkee, India, for the period 2008-2012.

All India Rank 35, JMO
In KVS Junior Maths Olympiad (JMO) conducted by Kendriya Vidyalaya Sangathan for 10^{th} Class during 2005-06.

ACHIEVEMENTS

- All India Rank (Gen.) of 1221 in IIT-JEE 2008
- Under-1000 world rank in Matlab Cody Challenge
- 95%+ in Intermediate (Classes XI-XII)
- 350+ citations & h-index: 10 (Source: Scopus)

SKILLS

MATLAB, C/C++, Java, JavaFX, Python, and Latex.

GRADUATE STUDENTS

- Saurabh Yadav (PhD Student, IIIT-Delhi) (*Ongoing*)
- Avi Gupta (PhD Student, IIIT-Delhi) (*Ongoing*)
- Shreyansh Jain (MTech Thesis Student, IIIT-Delhi) (*Completed*)
- Harsh Vardhan Badhauriya (MTech Thesis Student, IIIT-Delhi) (*Completed*)
- Harshit Chabbra (MTech Capstone Student, IIIT-Delhi) (*Completed*)
- Tarang Dineshbhai Viroja (Vehant Fellow [MTech Student], IIIT-Delhi) (*Ongoing*)
- Isha Duggal (Senior Resident Doctor, MAIDS) (*Ongoing*)
- Rashmil Renu (PG Student, MAIDS) (*Ongoing*)

PROFESSIONAL SERVICES and MEMBERSHIPS

- Reviewer for CVPR, ECCV, ICCV, WACV, ICLR, AAAI, NeurIPS & AISTATS
- Reviewer for TIP, TMM, TCSVT, TMI, TOMM, TETCI, PR, CVIU & MVA
- Session Chair at ICME'22 & BigMM'20
- IIIT-Delhi CSE Website Coordinator: https://cse.iiitd.ac.in/
- IIIT-Delhi Faculty In-Charge (International Students)
- IIIT-Delhi Ranking Committee Member
- IEEE & ACM Member

REFERENCES

Jianfei Cai
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Junsong Yuan
Professor
Computer Science and Engineering Department, University at Buffalo, USA
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Jiangbo Lu
Chief Technology Officer (CTO)
SmartMore Corporation, China
Contact: jiangbo@smartmore.com