Faculty Profile

Dr. Emmanuel Joy
Assistant Professor,
Department of Computer Science and Engineering
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Academic Background

Degree	University	Year
Ph.D (Computer Vision)	Karunya Institute of Technology and Sciences	2018
M.Tech (Multimedia Technology)	Karunya Institute of Technology and Sciences	2012
B.E (Information Technology)	Karunya University	2010

Courses Taught

Theory

1. Web Designing
2. Augmented and Virtual Reality
3. 3D Animation
4. 3D Video and Graphics
5. Internet Programming
6. Motion Capture
7. Game Design using Unity
8. Mobile Application Development
9. Object Oriented Programming using Java
10. Linux and Advanced C Programming
11. VR Technologies and Applications
12. Sound effects and Foley
13. Semiotics and Rhetorics
14. Computer Graphics and Multimedia

Labs

1. Multimedia Lab
2. Visual Effects Lab
3. 2D Animation Lab
4. Graphics and Animation Lab
5. Web Designing Lab
6. Game Production Lab
7. Visual Design Lab

Research Interests

- Computer Vision
- Image and Video Processing
- Augmented Reality

Most recent Publications

- David, A., Joy, Emmanuel. Kumar, S., & Bezaleel, S. J. (2021, May). Integrating Virtual Reality with 3D Modeling for Interactive Architectural Visualization and Photorealistic Simulation: A Direction for Future Smart Construction Design Using a Game Engine. In International Conference on Image Processing and Capsule Networks (pp. 180-192). Springer, Lecture Notes in Networks and Systems book series (LNNS, volume 300) https://link.springer.com/chapter/10.1007/978-3-030-84760-9_17

- Emmanuel Joy, J. Dinesh Peter, "Visual Tracking with Conditionally Adaptive Multiple Template Update scheme for intricate videos", March 2018, Volume 24, Issue 2, pp 175–194, Multimedia Systems, Springer, **Impact Factor: 1.935** https://link.springer.com/article/10.1007/s00530-017-0540-2

- Emmanuel Joy, J. Dinesh Peter, "Perspective Model-based Visual Tracking scheme for Robust tracking of Fast Moving and Occluded Objects in complex environs", August 2018, Volume 77, Issue 15, pp 19745–19768, Multimedia Tools and Applications, Springer. **Impact Factor: 2.757** https://link.springer.com/article/10.1007/s11042-017-5424-0

- Emmanuel Joy, J. Dinesh Peter, "Tracking of Unique Colored Objects: A Simple, Fast Visual Object Detection and Tracking Technique." In Informatics and Communication Technologies for Societal Development, pp. 149-156, Springer-Verlag India 2015. http://link.springer.com/chapter/10.1007/978-81-322-1916-3_15

Projects Guided

- Interactive Architectural Visualization
- AI, ML | Edge Detection, Samsung PRISM: Industry-Academia Program
- Development and design of an online social network platform
- Rich Internet Application experience using Adobe Flex.
- Computer Vision based tracking and recognition.

Memberships in Professional societies

- Institute of Electrical and Electronics Engineers (IEEE) 2013 – 15.
- Computer Society of India (2016)

Significant achievements:

- Received Silver Jubilee PhD Fellowship Grant for research.
- Regular contributor of OpenCV library for image processing and computer vision

Professional Services:

- Reviewer – Urban Design International | Palgrave Macmillan
- Reviewer – Multimedia Tools and Applications, Springer