

## About Us

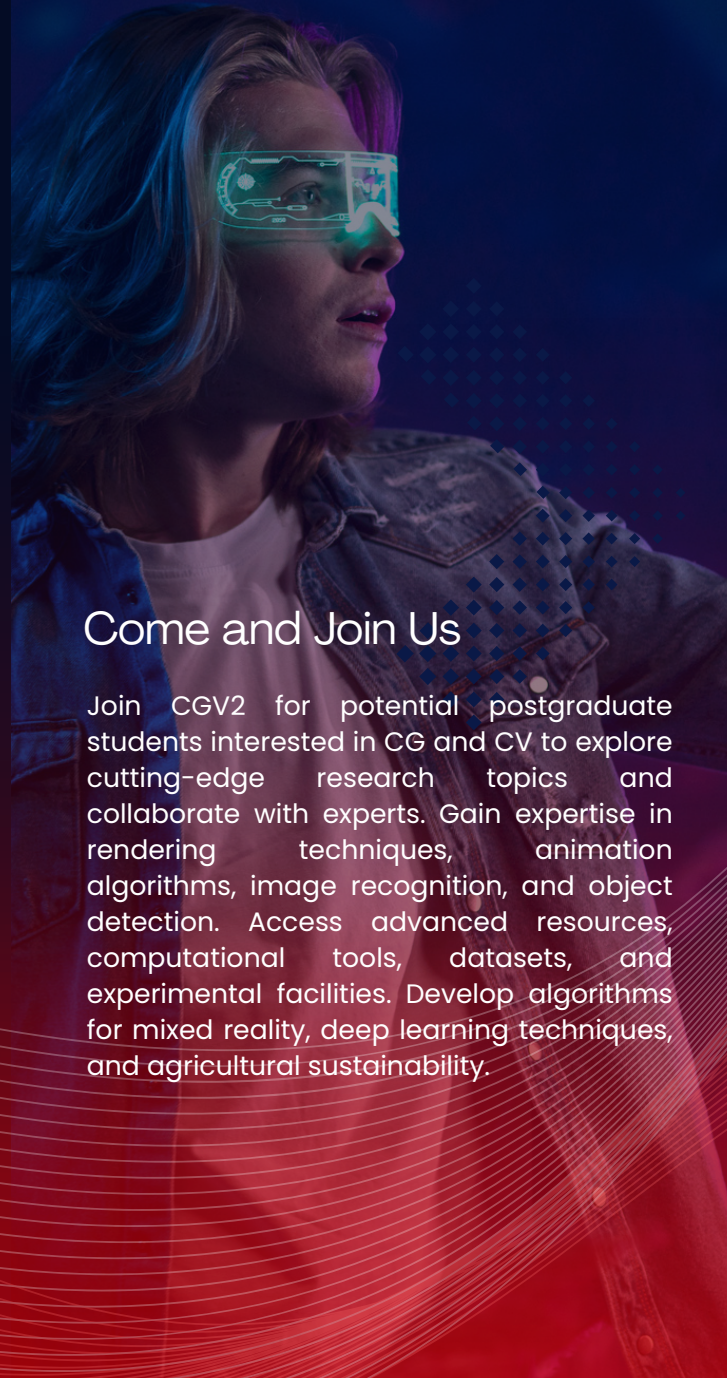
CGV2 is a research group dedicated to explore the intersections of computer graphics (CG) and computer vision (CV) to address real-world challenges and drive innovation.

The group aims to offer advanced visualization solutions across various domains, including healthcare, food security, agriculture, urban planning, manufacturing and entertainment.

The group's interdisciplinary team focuses on creating, manipulating, and rendering visual content using computers. CGV2 has developed cutting-edge algorithms to enhance machines' ability to interpret and understand real-world visual information.



**Are you ready to make a difference  
through interdisciplinary research,  
innovation, and creativity?**



## Come and Join Us

Join CGV2 for potential postgraduate students interested in CG and CV to explore cutting-edge research topics and collaborate with experts. Gain expertise in rendering techniques, animation algorithms, image recognition, and object detection. Access advanced resources, computational tools, datasets, and experimental facilities. Develop algorithms for mixed reality, deep learning techniques, and agricultural sustainability.



## COMPUTER GRAPHICS, VISION AND VISUALIZATION

Fakulti Sains Komputer Dan  
Teknologi Maklumat  
Universiti Putra Malaysia

### More Information :

[www.cgv2.com](http://www.cgv2.com)

[www.fsktm.upm.edu.my](http://www.fsktm.upm.edu.my)



## Team Members



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\*All CGV2 members key areas includes  
Artificial Intelligence and Multimedia  
Application

## Food Security

### **Simulation :**

CG model different farming scenario such as irrigation strategies, fertilizer applications, or crop rotations.

### **Crop Management :**

CV analyze imagery and sensor data to generate detailed maps of soil properties, moisture levels, and crop variability within fields.

## Medical Imaging and Diagnosis

### **Surgical Planning :**

CG techniques create 3D reconstructions of patient anatomy from medical imaging data.

### **Disease Detection :**

CV algorithms analyze medical images to detect abnormalities or early signs of diseases, such as tumors or fractures.

## Digital Twins

CG techniques create detailed 3D models of urban environments. By incorporating CV algorithms for analyzing LiDAR data, these models can be automatically updated and enriched with real-time information, facilitating urban planning decisions, traffic management, and disaster response.

## Call for Collaboration

CGV2 is seeking collaborations with researchers, industry partners, and organizations to advance computer graphics and computer vision innovation. They aim to create innovative solutions for various domains, such as healthcare, agriculture, urban planning, manufacturing, retail, and entertainment. We welcomes interdisciplinary collaborations, partnerships, and projects that push technology boundaries and create a brighter future.

### **More Information :**

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## PROJECT HIGHLIGHTS

