Abstract

IMAGE ANALYSIS AND DESCRIPTION GENERATION

In recent years, rapid advancements in computer vision and artificial intelligence have enabled machines to interpret and understand visual information effectively. This project presents the design and development of an intelligent image processing system that automatically analyzes images and generates meaningful textual descriptions using deep learning techniques. The proposed system employs convolutional neural networks to extract significant visual features from input images and sequence-based learning models to generate context-aware natural language descriptions. The system is capable of handling both static images and real-time visual input, thereby enhancing its applicability in practical environments. This approach aims to reduce manual interpretation of visual data and improve accessibility by converting visual content into understandable textual or audio form. The developed system demonstrates efficient performance in generating accurate and relevant descriptions, making it suitable for applications such as assistive technologies for visually impaired individuals, content management systems, and smart automation platforms. The results indicate that the proposed solution is reliable, scalable, and effective for real-world industrial and social applications.

Batch No.: 20

Group Members:

M.Gopal(23SS1A6632)

K.Srividya(23SS1A6629)

R.Manasa(23SS1A6653)

Khana Saif(23SS1A6628)

Project Guide:

Mrs.K.Mounika

Assistant Professor