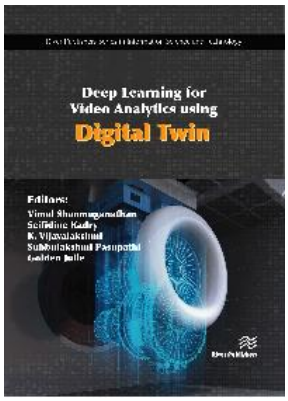

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Deep Learning for Video Analytics using Digital Twin

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Description:

Over the recent years, a considerable amount of effort has been devoted, both in industry and academia on multimedia data handling. There is emerging technology for handling business analytics, using big multi modal data and AI techniques. There has been an expansion of video data used for modern surveillance and personal data captures. The processing of such large amounts of video data is a huge task. Deep learning based video data analytics is a major platform where most researchers focus on big visual data with modern real time applications. Video data is assumed to be needing a large spatial and temporal analysis which can be addressed easily with Deep Learning to provide the clear pixel level labels with AI based Deep video data analytics approaches. Also, Deep Learning is a useful approach to solve supervised and unsupervised learning problems and to address various issues arising due to GPU clusters.

This volume provides a forum for researchers, especially those with an interest in efficiency, to examine challenging research questions, showcase state-of-the-art, and share breakthroughs in Multimedia Data Handling using Digital Twin technology.

Technical topics discussed in the book include:

- Learning data representation from video based on supervised/unsupervised/semi-supervised learning
- Deep Learning on multi-modal social media disadvantages
- Data mining on big multi-modal social media networks using distributed analysis
- Social behavior modelling, understanding, and pattern mining with deep models using Digital Twin
- IoT based Video Analytics using Cloud based AI using distributed analysis
- Web video understanding using deep learning techniques, including classification, annotation, event detection and recognition, authoring and editing using Cloud based AI
- Video highlights, summary and storyboard generation using Cloud based AI using distributed analysis
- Digital Twin based Segmentation and tracking using Cloud based AI using distributed analysis
- Data collections, benchmarking, and performance evaluation with Cloud based AI using distributed analysis
- Human behavior analysis in real-time surveillance video surveillance using Cloud based AI

Keywords: Deep Video Analytics, Big Multimedia data ,High performance Computing, Cloud security