

## **ABSTRACT**

In badminton matches, player recognition and tracking can give crucial information to help coaches make better decisions in future matches. Consequently, it is also challenging to manually observe player movement in badminton video matches. Several visual tracking techniques have previously been adopted in sports to improve the analyzing process. In the current study, the authors focused on identifying badminton players that use Faster R-CNN method (Faster Region Convolutional Neural Network) in the video of the badminton game. To speed up the preparation of the dataset, Video Inpainting method is applied. Video Inpainting helps to eliminate the area that interrupts the detection process and also turns badminton video match into 540 image frames for training, evaluating, and testing the model. The dataset was collected from three badminton video matches with 4, 6, and 8 seconds long and 29,7 FPS, respectively. As a result, Faster R-CNN can recognize the player with impressive. The average accuracy value was obtained by up to 0.8048.