



The astro turf is expected to be ready by April 2019 • D Sampathkumar

Sensor-based

CSS' system uses sensors placed on an athlete that track movement as they play hockey. This provides audio and visual cues to guide athletes through the correct positions and movements of a drill. Former Olympians like Mohammed Riaz, Thirumalvalavan and penalty-corner specialists VR Raghunath, Rupinderpal Singh and former captain Sardar Singh are expected to join CSS.

Scientific training for athletes at CSS

● Srinidhi PR

In the world of sports, skill is no longer the main component required to become successful. Recovery is equally important to keep the athletes injury-free and manage workload to produce positive results.

In order to provide scientific training in hockey, the Centre for Sports Science (CSS) at the Sri Ramachandra Institute of Higher Education and Research, has joined hands with former India skipper and Olympian V Baskaran to set up an academy. The TruCoach-CSS Baskaran Centre for Hockey will use biomechanics that studies how a person's muscles and bones work together. They will also start the programme at the grassroots levels.

This new type of analysis creeping into the sports world

can also provide insight into when the athlete might peak or if they're ready for the long season. Having this access to precise movement data might help coaches and trainers tweak and prescribe drills to help players manage imbalances.

Baskaran, who has been appointed as director of the academy, believes biomechanics is a key part of the future of training since it can allow significant personalisation of exercise.

"India will not be able to beat the world's top teams unless we overhaul our system and start coaching junior boys at various age categories in a scientific manner. CSS offers all facilities under one roof — from biomechanics to data analytics, fitness training and nutrition, a player can have access to all. For example, if you are a drag-flicker

and you practice the technique without knowing how much pressure your hip, hamstring and thigh muscles can take, it might lead to a serious injury in future. But, if the player corrects the position at a young age through these methods, it will improve his longevity."

Dr S Arumugam, director of CSS, shared they also have an athlete monitoring app which will track the athletes even after they leave the lab. "This app will help in analysing their sleep pattern, food intake, blood pressure and if they have any discomfort in the body. If the app shows the athlete has not slept properly before the match day, then it is bound to affect his performance and we suggest to him to not to take the field that day. Likewise, there are categories to evaluate him," said Arumugam.



This new level of analysis enables trainers to quantify athletes themselves, rather than just quantifying their performance on the field. This idea of incorporating scientific training struck Baskaran when he met the World Cup-winning Belgium coach Shane McLeod in Bhubaneswar in December 2018.

"When I went to Bhubaneswar for the World Cup, I spoke to McLeod and found that biomechanics have helped better their performances over the years. One can see how effective their drag-flickers were during the tournament. They were able to create second string players who are equally competitive. That is what is missing in India. Here, we start at the age of 15-16 years, but we need to begin at 10 years. When you start evaluating between 10 years-14 years we can produce match-winners," said Baskaran.