

# **SHORT TERM COURSE ON SPORTS AERODYNAMICS**

**Dr. R. Ramakrishnan, ME,PhD,FIE, C.Eng(I)**

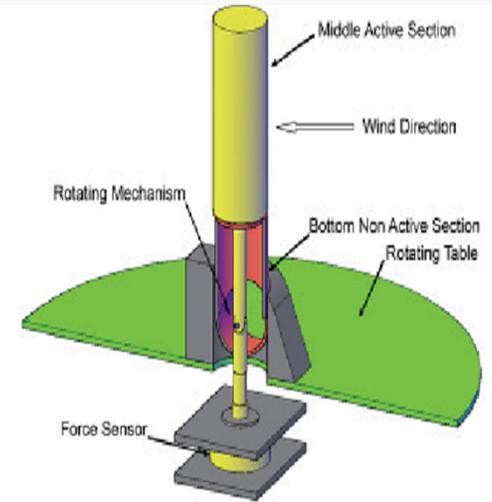
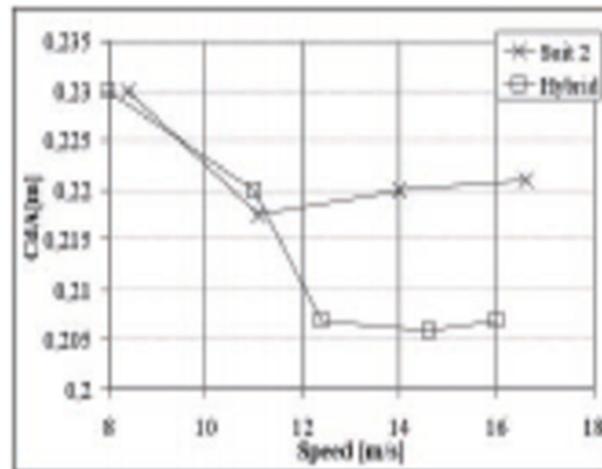
**Professor & Head**

**Vignesh S M, B.Tech (AERO)**

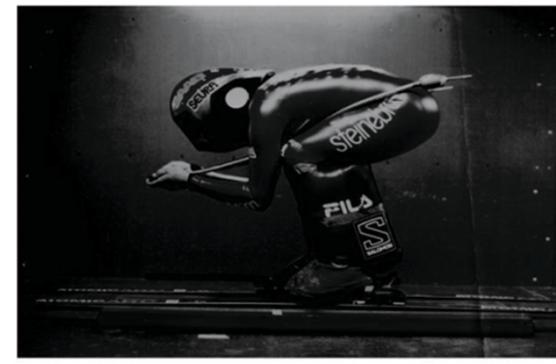
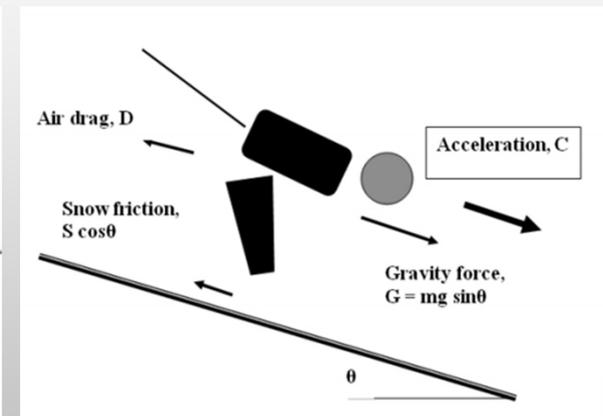
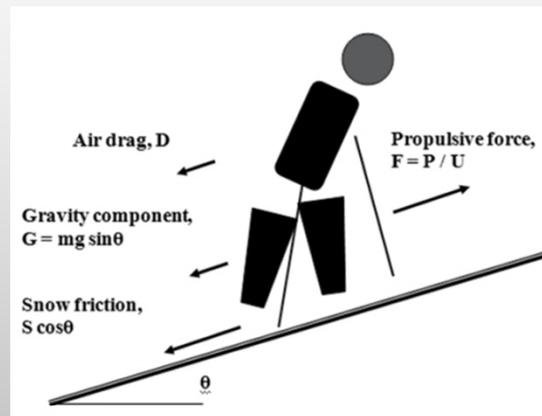
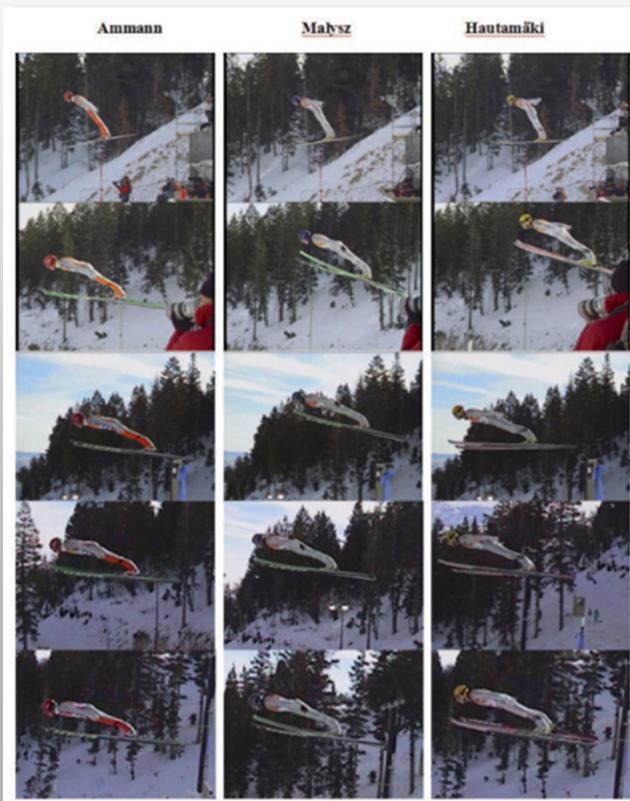
**Research Scholar**

**Department of Sports Technology  
Tamil Nadu Physical Education and Sports University  
Chennai**

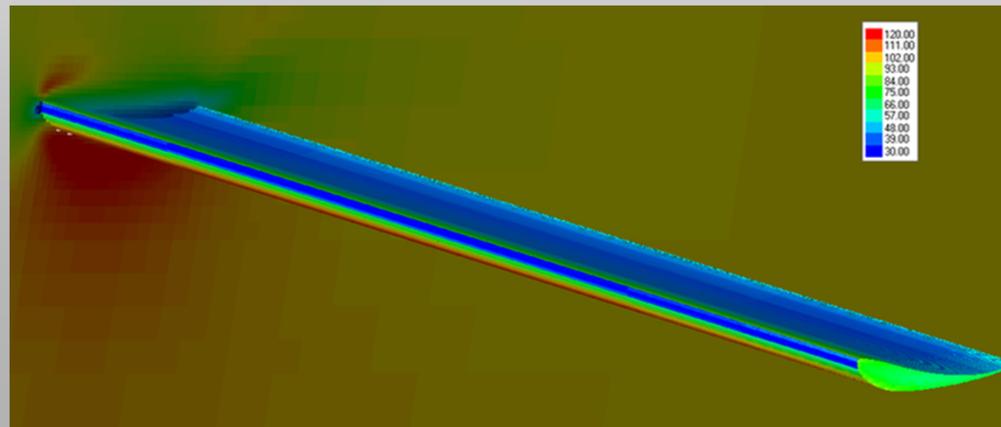
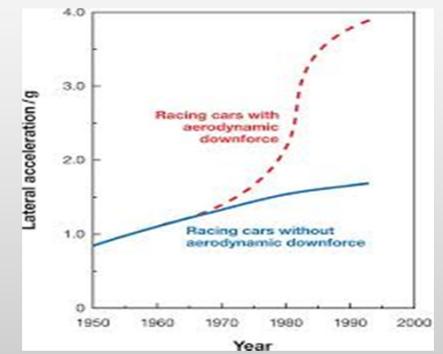
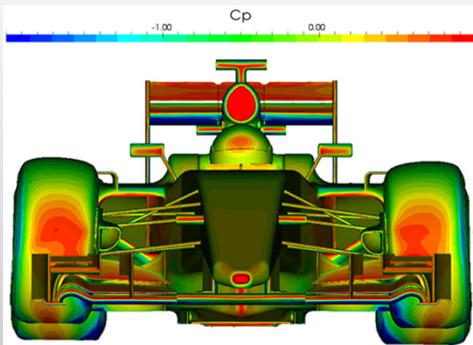
# Skin Suit Aerodynamics



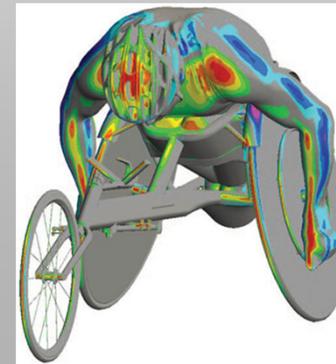
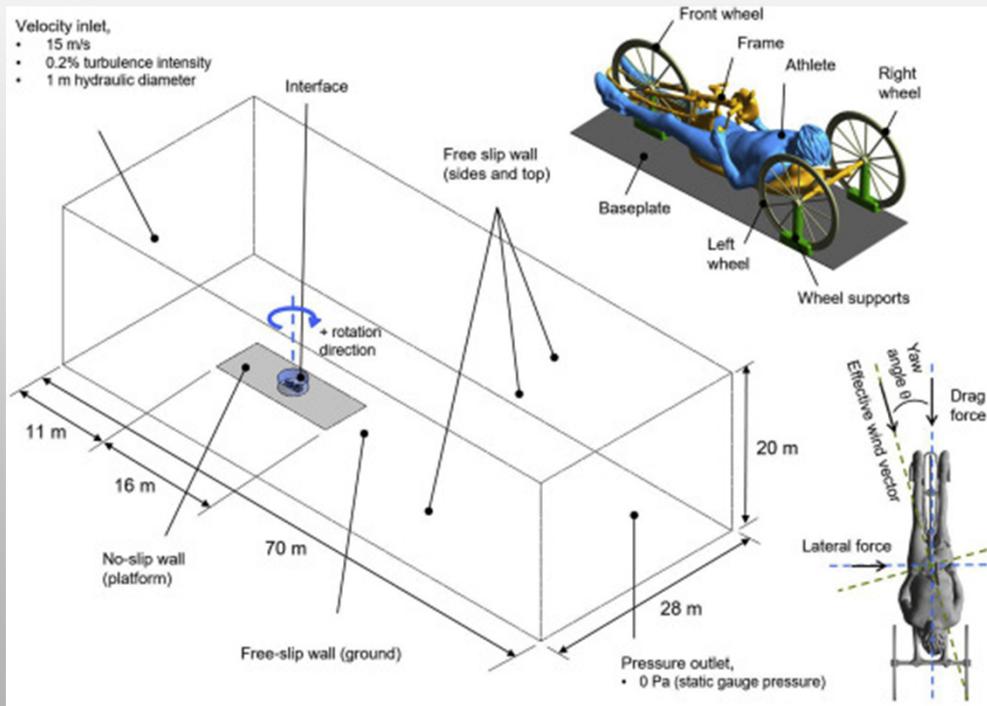
# Skier Aerodynamics



# F1 Car Race Aerodynamics

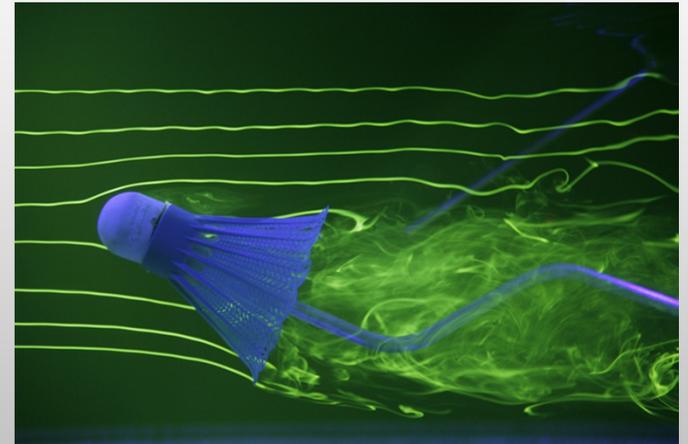


# Paracyclist



## Badminton Shuttlecock

Air conditioning 'drifts' pose problems for Olympic badminton players



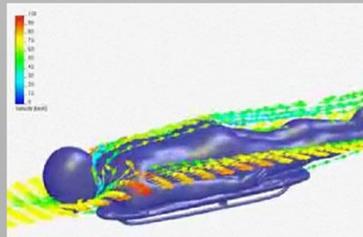
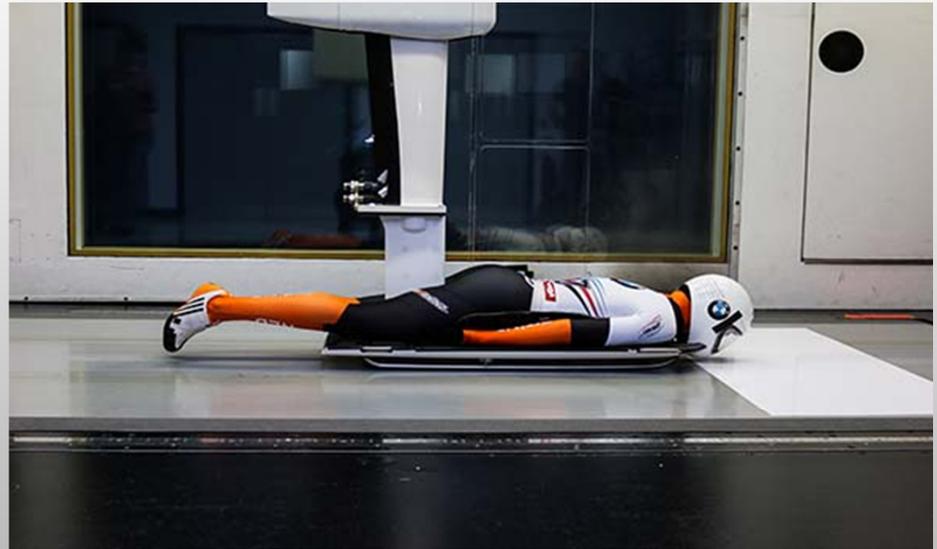
### Wind a worry for P.V. Sindhu

While Sindhu is happy that the Asiad is happening in a country that loves badminton, Indonesia ranks low on her list of favourite venues in the sport.

# Street luge



# Skeleton sports



## Human Powered Vehicle



**AeroVelo's human-powered vehicle “Eta” has broken the world record for fastest human-powered vehicle, reaching 89.59 mph/144.18 kph at the World Human Powered Speed Challenge in Battle Mountain, Nevada**

# Tamil Nadu Physical Education and Sports University



தமிழ்நாடு உடற்கல்வியியல் மற்றும் விளையாட்டுப் பல்கலைக்கழகம்

**TAMILNADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY, CHENNAI**

Accredited with "B++" Grade by NAAC

India's First State University in Physical Education and Sports

- First sports university established in India
- 120 Acres of campus area
- Only University to offer Sports Technology in India
- Facilitated with Wind Tunnel Lab, Sports Computational Lab and Dartfish Software



## Other Facility

- Research and Courses in Sports Medicine, Physiotherapy, Biomechanics, Sports Coaching and Psychology

### **Velodrome (cycle track)**



### **Tamil Nadu to get first sports biomechanics centre in Chennai**

*Tamil Nadu Physical Education and Sports University in Chennai set to get country's first sports biomechanics centre, funded by State government, that will be free of cost to students.*

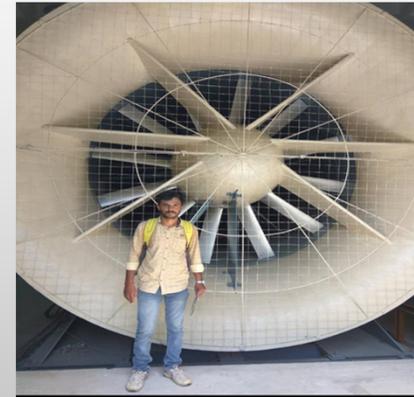
## Other Sports University in India



## Sports Research Wind Tunnels In India



(c) Boundary Layer Wind Tunnel



- IIT Roorkee
- CSIR Madras Campus

# Commercial Wind Tunnel In India

**RWDI, Kerala**



# MOOC

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## Sports and Building Aerodynamics

★★★★★ 5.0 (40 ratings) | 4.83/5

 Bert Blocken

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WORKSHOP

## Sport Aerodynamics Workshop

CFD Analysis of Aerodynamic Effects of Different Sports