

**Faculty of Mechanical Engineering**  
**M.E. Aeronautical Engineering**  
**(R 2021) Semester - I**

| <b>Course Code: AO4111</b><br><b>Course Title: Low Speed and High Speed Aerodynamics Laboratory</b> |   |  |
|---|---|--|
| <b>Sl.No.</b>   | <b>Description of Equipment</b>   | <b>Required members<br/>(for batch of 25 students)</b> |
| 1.  | Subsonic wind tunnel  | 1 No.  |
| 2.  | Supersonic wind tunnel  | 1 No.  |
| 3.  | 3 (or) 6 Component type Wind tunnel balance                                     | 1 No.  |
| 4.  | Schlieren System  | 1 No.  |
| 5.  | Pressure Transducer / Pressure scanner (1 psi)                                  | 1 No.  |
| 6.  | Multitube Manometer   | 1 No.  |
| 7.  | Pitot-Static Tube   | 1 No.  |
| 8.  | Yaw probe   | 1 No.  |
| 9.  | Smooth cylinder model   | 1 No.  |
| 10.   | Rough cylinder model  | 1 No.  |
| 11.   | Symmetric aerofoil model  | 1 No.  |
| 12.   | Cambered aerofoil model   | 1 No.  |
| 13.   | Wing of Cambered aerofoil section model   | 1 No.  |
| 14.   | Bluff body model  | 1 No.  |
| 15.   | Flat plate with accessories for velocity boundary layer Measurement             | 1 No.  |
| 16.   | Aircraft model with provision to mount on wind tunnel balance                   | 1 No.  |
| 17.   | Subsonic flow visualization setup (Smoke generator/Heleshaw/Water flow channel) | 1 No.  |
| 18.   | Blower  | 1 No.  |

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| <b>Course Code: AO4112</b> |   | <b>Course Title: Jet Propulsion Laboratory</b>         |
|----------------------------|---|--|
| <b>Sl.No.</b>              | <b>Description of Equipment</b>   | <b>Required members<br/>(for batch of 25 students)</b> |
| 1.                         | High Speed Jet Test facility  | 1 No.  |
| 2.                         | Supersonic Wind Tunnel  | 1 No.  |
| 3.                         | Subsonic Wind tunnel  | 1 No.  |
| 4.                         | Schlieren system/Shadowgraph system                                     | 1 No.  |
| 5.                         | Pressure Transducer / Pressure scanner (16 psi)                         | 1 No.  |
| 6.                         | C-D Nozzle  | 1 No.  |
| 7.                         | Convergent Nozzle   | 1 No.  |
| 8.                         | Convergent Nozzle with wall pressure tapings                            | 1 No.  |
| 9.                         | Pitot tube  | 1 No.  |
| 10.                        | 3 Axis Traverse Mechanism   | 1 No.  |
| 11.                        | Pitot Static tube   | 1 No.  |
| 12.                        | Flame holder model  | 1 No.  |
| 13.                        | Non-circular combustor  | 1 No.  |
| 14.                        | Wide angle subsonic diffusers   | 1 No.  |
| 15.                        | Multitube Manometer   | 1 No.  |
| 16.                        | Compressor cascade blade setup with provision to change incidence angle | 1 No.  |
| 17.                        | Cavity model  | 1 No.  |
| 18.                        | Spike or Ramp type supersonic inlet with wall pressure tapings          | 1 No.  |
| 19.                        | C-D Nozzle with wall pressure tapings                                   | 1 No.  |
| 20.                        | Blower  | 1 No.  |
| 21.                        | Yaw probe   | 1 No.  |