**Damper Test System:**

A Damper is a tuned mass device used to suppress wind-induced vibrations on overhead power lines. There are two basic types of dampers:

- Single Conductor Dampers (Stockbridge Dampers)
- Multiple Conductor Dampers (Spacer Dampers)

A Stockbridge Damper is the most commonly used type of damper worldwide. The dumbbell-shaped device consists of two masses at the ends of a short length of cable or flexible rod, which is clamped at its middle to the main cable. The damper is designed to dissipate the energy of oscillations in the main cable to an acceptable level. In a Damper Test System, we modify our Electrodynamic Vibration System to perform dynamic tests on dampers to help manufacturers of overhead transmission line dampers characterise the following engineering parameters:

- Phase
- Force
- Net Phase
- Net Force
- Node
- Anti-node
- Resonance
- Fatigue

Sdyn is a leading manufacturer of this system in India. Our system complies with all Indian and International Standards for Damper Testing. This system is capable of conducting the following tests on overhead transmission line dampers:

- Dynamic Characteristics Test
- Damping Efficiency Test
- Damping Efficiency Test with Wind Power Input
- Log Decay Test
- Resonance Test
- Fatigue Test
Rubber & Elastomer Test System:

Testing rubber and elastomer determines whether they can be used in specific applications. Normally, rubber is used in situations that require a product capable of large amounts of deformation and is still able to return to its original shape afterwards. To test for this characteristic, the materials are exposed to tension, compression, adhesion and impact to determine the following:

- Elastic modulus
- Tensile and compressive strength
- Elongation or reduction of areas at break
- Response to shock forces
- Adhesion force between the elastomer and the reinforcing material

These characteristics define the expected limits of the material samples tested, which gives a depiction of how the rubber or elastomer will behave under stress. In this system, we modify our Electodynamic Vibration System to perform static and dynamic tests on rubber and elastomer to characterise the following engineering parameters:

- Complex Dynamic Stiffness
- Storage Stiffness
- Loss Stiffness
- Damping Coefficient
- Phase
- Tan Delta
- Compression
- Transmissibility
- Natural Frequency
- Fatigue

Sdyn is a turnkey solution provider for this system in India, offering a unified Controller with 4 channel Vibration Control along with Rubber Application as a standard. Our system complies with all Indian and International Standards for Rubber & Elastomer Testing. This system is capable of conducting the following tests on rubber and elastomer:

- Static Test
- Dynamic Test
- Static + Dynamic Test
- Fatigue Test