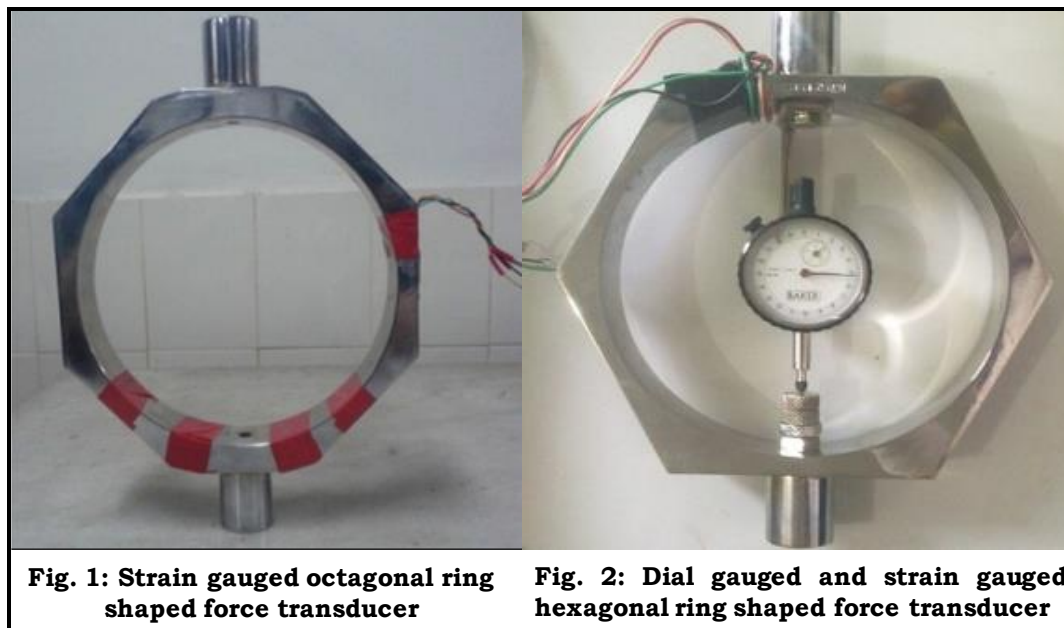




### **Name of the Technology: Development of axis-symmetrical shaped force transducers**

**Summary:** Force transducers are widely used for various applications, which may be related to precision metrological applications as well as industrial metrology. The force transducers are designed in accordance to the application areas as well as the degree of precision of measurement. Force transducers are of various shapes like S shaped, low profile, ring shaped etc. Present technology deals with the designing of different axis-symmetrical shaped force transducers for different metrological applications related to static force measurement. Axis – symmetric shaped force transducers ensures the point load / concentrated force being applied to the force transducer while maintaining the axial symmetry. Different axis-symmetric shaped force transducers like square ring shaped, hexagonal ring shaped and octagonal ring shaped force transducers for static force measurement related applications (metrological as well as industrial). Such force transducers are found to be useful in accordance to the guidelines of standards like IS 4169 and ISO 376 etc.



### **Applications:**

1. Force transfer standard; 2. Verification of material testing machines; 3. Weighing scales; 4. Precision metrological and industrial applications.

**Advantages:**

1. The know-how presents novel shaped force transducers for metrological and industrial applications.
2. The technology presented enables the development of force transducers for various applications from force transfer standards to verification of material testing machines.
3. The force transducers are free from inherent shortcoming of analogue type force proving instruments.
4. The force transducers offer comparable metrological characteristics to the precision force transducers commercial available, which are of very complex shape with difficult data acquisition system.
5. The force transducers will be able to meet guidelines of the applicable standards like IS 4169-2014 or ISO 376-2011 etc.
6. In the know-how, design related issues have been discussed related to different shapes of force transducers and no sensing element fabricated or designed to be given to licensee.

**User Industries:**

Calibration laboratories;                      2. Material testing industries;                      3. Electronic weighing scale manufacturers

**Choose the Readiness level of the Technology:                      Technology Development**

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

**Related Patents:** Patent No: **Know-how**; Country: **Not applicable**; Publication Date: **Not applicable**; Grant Date: **Nil**; Year of Introduction: **2016**

**Broad Area/Category: Electronics & Instrumentation**

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