Researchers from Indian Institute of Science have fabricated nanocomposite of reduced graphene nanosheets and silver nanoparticles for sensor applications, particularly compact size, low cost and flexible temperature sensors.

**BACKGROUND**

Temperature sensors contain elements with the property of temperature-dependent electrical resistance (for example, thermistor). Though conventional temperature sensors have higher sensitivity, they exhibit lower response time and limit their temperature range. Recently, nanoscale devices have been attractive candidates for temperature sensing.

**TECHNOLOGY**

The invention relates to a nanocomposite of reduced graphene nanosheets and silver nanoparticles for temperature sensing applications.

Key features:

- Flexibility in terms of stretchability and bendability
- Cost effective and simplified fabrication process
- Tailor made resistance values
- Reduced size of the device and hence packaging requirement is least.
- Mass production at low cost

The same sensor can be applied for strain, pressure, force, acoustic, speed, humidity, gas sensing and biological sensing.

**COMMERCIALIZATION**

IISc has filed a patent application for this invention in India. We are seeking partners for licensing and commercialization of this technology.