

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc (Electronics)**  
**Semester: V**  
**Syllabus with effect from: June - 2013**

<b>Paper Code: US05CELE04</b>	<b>Total Credit: 3</b>
<b>Title of Paper: Instrumentation</b>	

<b>Unit</b>	<b>Description in detail</b>	<b>Weightage (%)</b>
I	Wheastone Bridge, Kelvin Bridge, AC Bridge and their applications, Maxwell Bridge	<b>25%</b>
II	Hay Bridge, Schering Bridge, Unbalance conditions, Wein Bridge.	<b>25%</b>
III	Classification of Transducers, Selection of Transducers, Capacitive Transducers, Inductive Transducer, Linear Variable Differential Transformer.	<b>25%</b>
IV	Photoelectric Transducer, Piezo electric Transducer, Strain Gauges, Displacement Transducer, Thermocouple, Thermistor characteristics and Applications.	<b>25%</b>

**Basic Text & Reference Books:**

- Modern Electronics Instrumentation and Measurements Technique By : A.D.Helfrick and W.D.Cooper
- Instrumentation Devices and Systems By : C.S.Ragan Sharma and V.S.V.Mani

