

**Master 2012**

**Pushkar Parkhi**

**Ethernet / IP Stack Implementation for Low Power Devices**

*ABSTRACT - Masterthesis*

Ethernet (TCP/IP) based networks are state of the art. Even in measurement instruments there are numerous examples of instruments with this type of interface connection. Unfortunately these instruments normally show power consumption and memory needs that make them inadequate as low-power instruments. The goal of this Master thesis is the adaptation and extension of an existing software platform for low-power Cerabar M device with an Ethernet based Fieldbus communication i.e. EtherNet/IP (Ethernet Industrial Protocol), which is today an open industry standard. To achieve this goal, thesis proposes the integration of suitable EtherNet/IP stack into current Cerabar M software platform.