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<b>Title:</b>	<b>SAW RFID to track assets in the oil and gas industry</b>
<b>Abstract:</b>	<p>Drilling for oil and gas demands quality components capable of withstanding extremely harsh environments. The components that go down hole while drilling must be capable of withstanding extreme pressure of up to 1700 BAR and temperatures of over 200°C. In addition to pressure and temperature the abrasive nature and caustic chemicals used in drilling create almost impossible barriers toward using technology on any part of the drill string.</p> <p>Attempts at using IC based RFID in the oil and gas industry has met with little success in surviving these conditions. In collaboration between HM Energy, LLC and CTR, SAW RFID tags have been developed that survive downhole conditions allowing for assets to be tracked throughout the drilling process. These tags utilize metal alloys and thermoplastics used in oil and gas engineering applications.</p> <p>This talk gives an overview of the design of this custom SAW tag, potential usage at the drilling site and future uses for the oil and gas industry.</p>