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Papers and Presentations

Forum Expectations

Dan Driscoll, Project Manager, U.S. Department of Energy, NETL

Forum 1: Third Party Damage/Remote Monitoring/Leak Detection

Moderator: Stan Al Yost, U.S. Department of Energy, NETL

- ***Hyperspectral, multispectral and Radar Imaging***
William L. Pickles, Lawrence Livermore National Laboratory
- ***Satellite and Airborne-Based Remote Sensing Systems***
Donald G. Price, Pacific Gas and Electric Company
- ***Evaluation of Active / Passive Gas Imagers for Transmission Pipeline Remote Leak Detection***
Thomas A. Reichardt, Sandia National Laboratory
- ***Radar Detection and Monitoring of Gas Pipeline Leaks***
Sami Gopalsami, Argonne National Laboratory
- ***Detection of Unauthorized Construction Equipment in Pipeline Right of Ways***
James E. Huebler, Gas Technology Institute
- ***Ultrasonic Measurement of Plastic Strain in Pipelines***
Paul Panetta, Pacific Northwest National Laboratory

Forum 2: Underground Detection

Moderator: Stan Magda Rivera, U.S. Department of Energy, NETL

- ***Detection of Subsurface Facilities Including Non-Metallic Pipes***
William J. Steinway, CyTerra Corporation
- ***Capacitive Tomography for the Location of Plastic Pipe***
Christopher J. Ziolkowski, Gas Technology Institute
- ***Micro-Power Impulse Radar (MIR) Demonstration for Pipe / Facilities Locator***
Carlos Romero, Lawrence Livermore National Laboratory
- ***Differential Soil Impedance Obstacle Detection for Horizontal Directional Drilling***
Christopher J. Ziolkowski, Gas Technology Institute

Forum 3: Compressor Technologies / Modeling

Moderator: Ron Harp, U.S. Department of Energy, NETL

- **Laser Based Spark Ignition for Reciprocating Engines**
Michael H. McMillian, U.S. Department of Energy, NETL
- **Increased Flexibility of Turbo-Compressors in Natural Gas Transmission Through Direct Surge Control**
Robert McKee, Southwest Research Institute
- **Retro-Fit Micropilot Ignition for Pipeline Engines**
Bryan Wilson, Colorado State University
- **Virtual Pipeline System Testbed to Optimize the U.S. Natural Gas Transmission Pipeline System**
Kirby S. Chapman, Kansas State University

Forum 4: Monitoring and Repair Technologies

Moderator: Rodney Anderson and Dan Driscoll, U.S. Department of Energy, NETL

- **Conformable Array for Mapping Corrosion Profiles**
Al Crouch, Southwest Research Institute
- **Electro-Chemical Noise Sensors for Detection of Localized and General Corrosion of Natural Gas Transmission Pipelines**
Gordon Holcomb, Albany Research Center
- **Development of an Environmentally Benign Microbial Inhibitor to Control Internal Pipeline Corrosion**
Robert Paterek, Gas Technology Institute
- **Monitoring Technology for Early Detection of Internal Corrosion for Pipeline Integrity**
Glenn Light, Southwest Research Institute
- **"GASNET": Gasline Sensor Network System**
Hagen Schempf, Automatika, Inc.
- **Sealing Large Diameter Cast Iron Pipe Joints under Live Conditions**
Kiran Kothari and Gerard T. Pittard, Gas Technology Institute
- **Smart Pipe: Integral Communication, Damage Detection and Multiple Sensor Application in Pipelines**
Karen A. Moore, Idaho Engineering and Environmental Laboratory

Forum 5: Advanced Inspection Technologies

Moderator: Bruce Utz, U.S. Department of Energy, NETL

- **Sensors Development for IPP Robotic Vehicle**
Mark Garrett and Michael Hassard, Sandia National Laboratory
- **Long-Range Untethered Real-Time Live Gas-Main Inspection System**
George Vradis, NYGAS
- **Multi-Purpose Acoustic Sensor**
Dipen N. Sinha and Richard A. Benson, Los Alamos National Laboratory
- **Acoustic Wave Pipe Inspection System**
Venugopal K. Varma, Oak Ridge National Laboratory
- **Development of Nonlinear Harmonic Sensors for Detection of Mechanical Damage**
Al Crouch, Southwest Research Institute
- **Development of an EMAT In-Line Inspection System for Detection, Discrimination and Grading of Stress Corrosion Cracking (SCC) in Pipelines**
Jeffery Aron, Tuboscope Pipeline Services
- **Circumferential Magnetic Flux Leakage (MFL) In-Line Inspection for Cracks in Pipelines**
Bruce Nestleroth, Battelle Memorial Institute

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