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SARI / Energy

Training of Trainers on Metering Technologies and Systems

March, 8 – 27, 2010
YMPL, Udaipur, Rajasthan,
India



WEEK 1 March, 09 - 13, 2010

Day 1 Tuesday, March 09, 2010

09:00 -09:30 Registration

09:30 – 10:30

Inauguration

Welcome Address : Mr. Manish Joshi, Manager – Marketing, Yadav Measurements Pvt. Ltd. (YMPL)

Opening Remarks: Mr. Michael Hajny, Chief of Party, PA Consulting Group

Inaugural Address: Mr. N. K. Bhati, Managing Director, Yadav Measurements Pvt. Ltd. (YMPL)

Vote of Thanks : Mr. Sabyasachi Pattanaik, Consultant, PA Consulting Group

Group Photograph

10:30 – 11:00 Tea Break

11:00 – 13:00 Refresher Course on Electrical Fundamentals by Mr. B. M. Vyas, AGM, Yadav Measurements Pvt. Ltd. (YMPL)

13:00 – 14:00 Lunch

14:00 – 15:30 Measurements of Power in 3 phase Circuit by Mr. N. K. Bhati, Managing Director, Yadav Measurements Pvt. Ltd. (YMPL)

15:30 – 15:45 Tea Break

15:45 – 17:30 **Demonstration/Hands-on** of Basic Meter Types and connections by Mr. N. K. Bhati, Managing Director, and Sunil Harkawat Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)

Day 2 Wednesday, March 10, 2010

09:30 – 11:00 Theory Lecture on Static Metering Technology Mr. B. M. Vyas, AGM, Yadav Measurements Pvt. Ltd. (YMPL)

11:00 – 11:15 Tea Break

11:15 – 13:00 Session Continued....

13:00 – 14:00 Lunch

- 14:00 – 15:30 Static Meter Hardware Demo and Visit to Meter Manufacturing Unit by Mr. B. M. Vyas, AGM, & Mr. Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 15:30 – 15:45 Tea Break
- 15:45 – 17:30 Session Continued....

Day 3 Thursday, March 11, 2010

- 09:30 – 11:00 Theory Lecture on Calibration, Metrology and Good Laboratory Practices by Mr. B. M. Vyas, AGM, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Visit to Calibration Lab and **demonstration/hands-on** of the accuracy test by Mr. Abhijat Dube, Manager, Sanjay Khemnar S3, Raguvendra Dewra S1, Abhishek Garg S1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 4 Friday, March 12, 2010

- 09:30 – 11:00 Theory Session on Meter Software functional features of Meter by Mr. N. K. Bhati, Managing Director, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration of Meter Software functional features of Meter by Mr. N. K. Bhati, Managing Director, and Mr. Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 5 **Saturday, March 13, 2010**

- 09:30 – 11:00 Theory Lecture on MRI, BCS and Meter Information Integration by Mr. Vivek Pathak, Manager, Secure Meters Ltd.
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 **Demonstration/Hands-on** session on MRI, BCS and Meter Information Integration data by Mr. Vivek Pathak, Manager, Secure Meters Ltd.
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

WEEK 2 **March, 15 - 20, 2010**

Day 6 **Monday, March 15, 2010**

- 09:30 – 11:00 Meter Installation practices and field testing by Mr. G. K. Panchal, Vice President, Datagen Power Systems Pvt. Ltd.
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration of Good Meter Installation practices and Field testing by Mr. G. K. Panchal, Vice President, Datagen Power Systems Pvt. Ltd.
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 7 **Tuesday, March 16, 2010**

- 09:30 – 11:00 Theory Session on Revenue protection (tamper and fraud) issues in 1 phase meters (Part -1) by Mr. N. K. Bhati, Managing Director, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration and practical's on revenue protection issues (Part -1) by Mr. N. K. Bhati, Managing Director, and Mr. Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Evaluation of Participants by Mr. Abhijat Dube, Manager, Mr. Raguvendra Singh Dewra, Scientist 1, Mr. Abhishek Garg, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)

Day 8 **Wednesday, March 17, 2010**

- 09:30 – 11:00 Theory Session on Revenue protection (tamper and fraud) issues in 3 phase meters (Part -2) by Mr. N. K. Bhati, Managing Director, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration and practical's on revenue protection issues (Part -2) by Mr. N. K. Bhati, Managing Director, and Mr. Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 9 **Thursday, March 18, 2010**

- 09:30 – 11:00 Theory Session of Standards and specially focused on Metering Standards by Mr. B. M. Vyas, AGM, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Visit to Electrical Testing Lab and **demonstration/hands-on** session of the testing jobs by Mr. Abhijat Dube, Manager, Sanjay Khemnar, S3, Mr, Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 10 **Friday, March 19, 2010**

- 09:30 – 11:00 Instrument transformers by Mr. Kiran Kelapure, Manager, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration of the CT/PT Testing by primary (MobiLab) and secondary injection (Red phase) by Kiran Kelapure, Manager & Team Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 11 Saturday, March 20, 2010

- 09:30 – 11:00 Visit to Site for the Demonstration of HT consumers and visit to the Grid Sub Station by Mr Manish Joshi, Manager, Yadav Measurements Pvt. Ltd. (YMPL) and Mr. Kiran Kelapure Manager, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Session Continued....
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

WEEK 3 March, 22 - 25, 2010

Day 12 Monday, March 22, 2010

- 09:30 – 11:00 **Demonstration/Hands-on** session on Calibration and Accuracy of Meters by Mr. Raguvendra Singh Dewra, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 **UNSTRUCTURED LABS/Hands-ON** Session, wherein participants would be taken to their respective areas of interest and there can have a Hands-on practical session.(Of course under the supervision of YMPL's Faculty) by Mr. Abhijat Dube Manager, Sanjay Khemnar Scientist 3, Raguvendra Singh Dewra, Scientist S1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 13 **Tuesday, March 23, 2010**

- 09:30 – 11:00 Session on: Theory lecture on Reference Standards and Meter Test System by Mr. Abhijat Dube, Manager, Yadav Measurements Pvt. Ltd.
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 Demonstration of reference Standards and Meter Test System by Mr. Raguvendra Singh Dewra, Scientist 1, Mr. Abhijat Dube, Manager, Yadav Measurements Pvt. Ltd
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 14 **Wednesday, March 24, 2010**

- 09:30 – 11:00 Theory Session on how to select Good quality meters and its acceptance (Evaluation of Meter) by Mr. B. M. Vyas, AGM, Yadav Measurements Pvt. Ltd. (YMPL)
- 11:00 – 11:15 Tea Break
- 11:15 – 13:00 Session Continued....
- 13:00 – 14:00 Lunch
- 14:00 – 16:00 **Demonstration/Hands-on** of the test that are done during acceptance /Inspection by Mr. Abhijat Dube, Manager and Mr. Sunil Harkawat, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)
- 16:00 – 16:15 Tea Break
- 16:15 – 17:30 Session Continued....

Day 15 **Thursday, March 25, 2010**

09:30 – 11:00 Evaluation of Participants by Mr. Abhijat Dube Manager, Mr. Raguvendra Singh Dewra, Scientist 1, Mr. Abhishek Garg, Scientist 1, Yadav Measurements Pvt. Ltd. (YMPL)

11:00 – 11:15 Tea Break

11:15 – 13:00 Session Continued....

13:00 – 14:00 Lunch

14:00 – 16:00

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Welcome Address : By YMPL

Opening Remarks: TBD

Prefatory Remarks: TBD

Appreciation Address: Nominated participant from the Afghanistan Team

Vote of Thanks: TBD

Certificate Distribution

16:00 – 16:30 Tea Break