











#### Welcome in our course!

We hope the Engineer can make big decision when opened this brochure. This brochure will give you more opportunity to develop the practical skill for inspection work, especially in instrumentation and control systems. Recently, many project which execute by Engineering Procurement and Construction (EPC) Company need huge man power especially for instrument inspector. The End User of Oil and Gas Company also need the practical skill of instrument inspection to protect and avoid any failure of instrument devices at plant.

We develop in house training to prepare the practical skill of instrument inspection to the Engineer during bidding until commissioning. The lack of qualified instrument inspector is a opportunity for us to make course completely. We have big dream to provide qualified instrument inspector to get ZERO INSTRUMENT FAILURE after plant is running.



The trust and integrity value will influence the course activity. In other mean, we also develop other skill to get trusted instrument inspector. Integrity value will be applied during course session. The lack of integrity will reduce the performance of instrument inspector. So the Engineer will get complete skill, both technical and soft skill.

So, don't hesitate to join us, before the chance will be losed. The good opportunity is a good way to join the course to get ZERO INSTRUMENT FAILURE at your plant . Let's prepare your time to develop this course more enjoyable. We wait good respons regarding this opportunity.

**Thanks** 

Mr Tika Iswara, ST - Certified Instrument Inspector

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#### About the Founder: Mr Tika Iswara



He was born at Blora, Central Java, Indonesia in 1982. Since he studied at elementary school, he had some unique idea. When TAMIYA is known as car toy, he designed his old car toy with additional motor DC and power supply plus any simple gear box. When he was studied at level 5 of elementary school, he made bicycle alarm. Alarm became active, when his bicycle was driven by thief. He installed old clock alarm inside the bicycle and add switch sensor inserted to bicycle frame.

When he studied at Engineering Physics Department (www.tf.ugm.ac.id) of Gadjah Mada University, he won the awards in National Industrial Electronics Creation Championship at Surabaya 2006 as "Best Design" and 3rd Winner. He made CO Monitoring Systems for Vehicle Based on Atmega8535 Microcontroller.

https://www.scribd.com/document/69125930/reportFigaro

After he had finished studied at University, he joined PT.Pratiwi Putri Sulung (www.pratiwi.com) as Instrument Engineer. He got experiences especially in Natural Gas Metering and Regulating Station. His clients consist of PT.Perusahaan Gas Negara, PT.Medco Energi, PT.Krakatau Daya Listrik, PT.Pertamina and other Oil and Gas Company.

Then he resigned and joined to Systems Integrator Company, PT.Wifgasindo Dinamika Instrument Engineering (www.wifgas.com) as Systems Engineer. He got more experiences in Control Systems and Safety Systems. His clients consist of Exxonmobil, SANTOS, Chevron, Vico and others Oil and Gas Company.

After he got 4 years experinces working at instument subcontractor, then he joined the big one EPC Company at Indonesia, PT.Rekayasa Industri (www.rekayasa.com). He worked as QC Engineer (Instrument Inspector) for 4 years. He got many experiences as Instrument Inspector. He also make Training for Junior Instrument Inspector when they joined at PT.Rekayasa Industri. His clients consist of Conocophillips, Exxonmobil, PERTAMINA, PT.Semen Tonasa, PT.Pupuk Sriwijaya and other Industrial Company. Many instrument equipment brands had inspected by Mr Tika Iswara. He also had some experiences overseas inspection, such us: India, Taiwan, Myanmar, Singapore and Malaysia.

Based on his experiences as Instrument Inspector , he found some effective methods to get the good result of inspection result (ZERO INSTRUMENT FAILURE) after instrument devices running at plant. Recently, he develop Instrument Inspector Training (www.instrument-inspector.com) and also he develop his other bussiness on Renewable Energy, IT and Security Systems.



# **QC Engineer Instrument | Instrument Inspector Level 1**

#### **Theoretical Training Materials for 1 day:**

- Inspection & Test Plan (ITP)
- Factory Acceptance Test (FAT)
- Site Acceptance Test (SAT)
- Certificate Verification Method
- Visual Inspection Method
- Function Test Method
- Instrument Code & Standard
- Instrument Calibration Tools
- Instrument Test Tools
- Acceptance Criteria

#### Workshop:

Make Shop Inspection Test Plan (ITP) of Shutdown Valve

Training Method : Indoor Class Room, Complete with Workshop

 $\begin{array}{ll} \text{Training Duration} &: 08.00-12.00\text{, break, } 13.00-15.30\text{, break } 16.00-17.00\text{ WIB} \\ \text{Facilities} &: \text{Softfile Training Module, Original Certificates Printed (lifetime)} \end{array}$ 

5 years)\*, Polo Shirt, Goodie Bag, Online Certificate Validation

(click here) Lunch and Snack



### Field Instrument Inspection | Instrument Inspector Level 2

#### **Theoretical Training Materials for 1st day:**

- Basic of Instrument Engineering
- The Failure of Field Instruments
- Hazardous Area (Zone, Class)
- Explosion Proof Instrument (Ex)
- Ingress Protection (IP)
- Safety Integrity Level (SIL)
- Instruments Valve
- Instrument Cable & Bulk Material
- Grounding Systems
- Flow Meter Technologies
- Field Transmitter & Field Indicator
- Programmable Logic Controller (PLC)
- Fire and Gas Detector Systems (FGDS)
- Field Instrument Communication

#### **Practical Training Materials for 2<sup>nd</sup> day:**

 HART Communicator application, Function Test of Transmitter (4-20 mA HART), Loop Calibrator Function, Calibration include trim sensor and trim output of Pressure Transmitter, Control Valve Testing, ON/OFF Valve Testing, Temperature Signal Simulator, PLC Siemens, HMI Siemens TIA Portal V.14, Loop Test, Temperature PID Controller

Training Method: Indoor Class Room, Theory and Practical

Training Duration : 08.00 – 12.00, break, 13.00 – 15.30, break 16.00 – 17.00 WIB Facilities : Softfile Training Module, Original Certificates Printed (lifetime 5 years)\*, Outdoor Jacket, Goodie Bag, Free Voucher of PLC Siemens Training, Online Certificate Validation (click here),

Lunch, Snack

<sup>\*</sup> The certificate becomes valid forever after participating in the "We Help You Succeed" program.



## **Control System Inspection** | **Instrument Inspector Level 3**

#### **Theoretical Training Materials for 1st day:**

- Process Flow Diagram
- Types of Control Method
- FAT Procedure of Control Panel
- Control Narrative
- Loop Test Check Sheet
- Logic Check Sheet
- Cause & Effect Diagram as Brain of Industrial Plant
- Basic Logic Gate & Logic Gate Simulator
- Reading Cause & Effect Diagram
- Acceptance Criteria of Logic Inspection
- Logic Analysis of DCS/PLC/WHCP
- Logic Gate Inspection Method
- Communication Inspection Method

#### Practical Training Materials for 2<sup>nd</sup> and 3 third day:

 Cause and Effect application, Logic Test, Logic Software Simulation, Modbus Mapping, Modscan application, Wellhead Control Panel (WHCP), PLC Testing

Training Method: Indoor Class Room, Complete with Pre Test and Post Test

Training Duration : 08.00 – 12.00, break, 13.00 – 15.30, break 16.00 – 17.00 WIB

Facilities : Softfile Training Module, Cedar Logic Software, Vest,

Lunch, Snack, Original Certificates Printed (duration

5 years)\*, Goodie Bag, Online Certificate Validation (click here)

#### Certificate Validation Link:



<sup>\*</sup>Certificate will be valid forever after the alumni take part in the "We Help You Succeed" program

I feel this training is very relevant to my work as a practitioner in the world of electrical inspection & instrumentation due to the presentation of theory and practice and supported by adequate facilities and equipment in accordance with current industry standards (Riza Octavian, I & C Inspector ExxonMobil Indonesia)

This training is very good for describing the work of being an instrument inspector, very helpful in my work as an electrical and instrumentation engineer field (Ratno, Field Electrical Engineer, PT. Freeport Indonesia) www.ptfi.co.id

Level 2 Training Instrument is very useful and adds insight. (Ahmad Adrianto, Senior Inspector, Qatar Petroleum, 2008 – 2015)

The training gives me new knowledge of instrumentation. I believe 1st level training will help me a lot in my career progress. See you Mr. Tika at 2nd level training!. (Muhammad Dicky Rahmatullah – ADNOC UAE)

The training is very good because it discusses a lot of case studies in the field, lessons learned and the teacher is a senior instrument practitioner with a lot of experience .(M Arjadi, QatarEnergy LNG)

Professional and very friendly, so you don't get bored with the existing material, supported by tutorials so you can make a guide if you have work or face problems while working. (Saiful Khodir A N - Solstad Offshore AS)

The training was great, I got the refreshment and also new insight and knowledge about instrumentation inspection and QC cycle during project execution. Thanks for the sharing of Pak Tika's experience, it helps the training more valueable. (Ridho S H - Wood Engineering Doha, Qatar)

The explanation of the trainer is very good and very comprehensive about the basic details of inspection in industry and can explain the contents of technical inspection books (especially instruments). (Muhammad Dzakwan Afif Fadhullah, Teknik Fisika ITB) www.tf.itb.ac.id/en/

Very interesting training and can add insight about field instruments, especially in inspection and testing instruments so that they can be a strong stock in the world of work.(Zain Amarta, Teknik Fisika ITS) http://ep.its.ac.id/

Interesting training and insight into the world of work, especially those related to quality control and instrument inspector. Very useful for undergraduate students who want to seek knowledge related to instrument inspection. (Ibnu Hudaya Panggrahita, Teknik Fisika UGM) https://tf.ugm.ac.id/

By joining this training I was very lucky because I got knowledge that was not learned in class. I learned more about the instrument inspector in the field. This knowledge will be very useful when I graduate from college and work in the field. (Indah Cahyani, Teknik Fisika, UNAS) http://teknik.unas.ac.id/program-studi/program-studi-teknik-fisika/

The knowledge gained here has never been taught in lecture material anywhere and the material really fits the needs of the field.(Ikhsan Maulana, Teknik Fisika Telkom University)
https://bpe.telkomuniversity.ac.id/

Thank you, Pak Tika Iswara, for being a procedural expert in procuring services in the oil and gas industry. The communication is communicative, open and certainly explained in a coherent and clear manner. Still be a professional and credible person in carrying out inspection. (Yusraa Khoirun Abdul Wadjid, PEM AKAMIGAS) http://www.akamigas.ac.id/

The training is good, giving me new knowledge, especially regarding Instrument Inspector. Give tips on how to be a good inspector in the industry. (Hanif Ramadhan, PPNS/Teknik Otomasi) http://ppns.ac.id/jurusan-dan-program-studi-ppns/d4-teknik-otomasi-22/

Thank you for this training there are so many things that don't know to know in terms of intspection in a plant and the importance of inspection for an instrument engineer (Muhamad Vicky Driantama, Instrument Engineer, PT. Bukaka Teknik Utama) http://www.bukaka.com/

A best training for workers, especially oil and gas, because it is rich in material, and in accordance with the latest needs of the instrumentation world. (Kamsiyono, Feen Marine Inc. Batam ) https://feenmarine.com/

Very useful for beginners in the EPC Project World (Efri Burhanudin Sidiq,E/I Inspector, Minconsult Sdn. Bhd) http://www.minconsult.com/

Thank you for the training that is very useful and very good for me who has no experience in instrument inspection. The explanation is good and easy to understand. Learning from experienced mentors is very meaningful in learning that is not in the Book. Hopefully there will be more for the sequel .(Muhamad Apriyudi Syafputra, Electrical Engineer, McConnell Dowell) https://www.mcconnelldowell.com/

Although the name is Instrument Inspector but the material includes many things, apart from the field instrument itself it is also control and electrical related to it. Knowledge that is the basis of theory, technical and practical philosophy, experience in the field, updated technology, and how the work is shared by the instructors is very helpful for practitioners who have been involved in the field. Success for the next training (Arfan Hidayat, PT. Green Gold Engineering) https://greengoldengineering.com/

This training is very useful for those who want to explore the stages of inspection and important points in inspection. (Dian Ayuning Widowati, Worley Parsons Indonesia) https://www.worleyparsons.com/

# **CUSTOMERS WORKING PLACE**

















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