



INDUSTRIAL TRAINING

UNIVERSITY OF TECHNOLOGY MALAYSIA

SUPERVISION SESSION

AGENDA

01

About Me

02

Company Profile

03

What I have Learned?

04

Closing

K E V I N M A U L A N A

- **Padang, Indonesia**
- **A16KM3004 / 201702M10034**
- **Mechanical Engineering –
Aeronautics**
- **School of Mechanical
Engineering**



BALAI LATIHAN KERJA PADANG

Balai Latihan Kerja (BLK) Padang is a government agency that has the main task of carrying out training, competency testing, certification, and institutional cooperation in the field of industrial job training.





1. ICT vocational
2. Manufacturing engineering vocational
3. Welding engineering vocational
4. **Automotive engineering vocational**
5. Electrical engineering vocations
6. Vocational construction engineering
7. Refrigeration engineering vocational
8. Electronics engineering vocational
9. Tourism vocational
10. Beauty care vocational
11. Garment apparrell vocational
12. Business management vocational



Vision and Mission

VISION :
CREATING A COMPETENT AND COMPETITIVE WORKFORCE.

- MISSION :**
- 1. PREPARING QUALITY COACHING PERSONNEL.**
 - 2. EXCELLENT SERVICE IN ACCORDANCE WITH THE STAND OPERATING PROCEDURE (SOP).**
 - 3. INCREASED DISCIPLINE AND WORK CULTURE, PRIDE AND SHAME OF MAKING MISTAKES.**
 - 4. WORK WITH MEASURABLE PERFORMANCE INDICATORS.**

IOT

Activities Conducted in the Past 8 Weeks :

TRAINING ABOUT INJECTION
MOTORCYCLE SERVICE (22/07 - 04/08)

Injection Motorcycle Service :

1. Management of tools
2. Maintenance of the injection system
3. Care for valve stretch
4. Maintenance free play gas throttle
5. Air filter maintenance
6. Maintenance of the clutch system
7. Check the engine oil system
8. Care for spark plugs
9. Maintenance of the cooling system
10. Wheel chain replacement
11. Maintenance of the braking system
12. Maintenance of the steering system
13. Maintenance of the suspension system
14. Disassemble the cover body
15. Battery Care
16. Maintenance of electrical instruments
17. Operate diagnostic tools



Theory



Practice

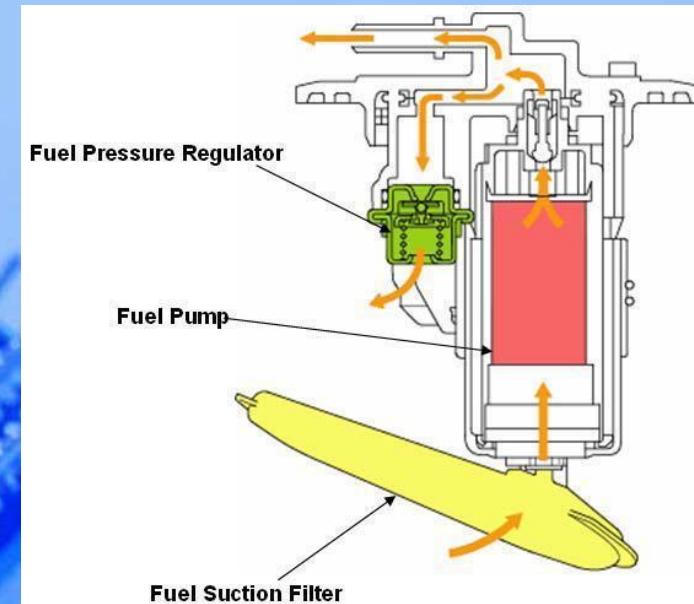
INJECTION MOTORCYCLE

An injection motorcycle is a motorcycle that relies on an injector to supply the vehicle's fuel to the engine (which relies on a lot of sensors).



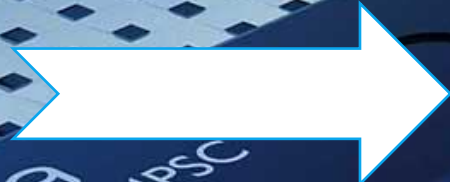
Malfunction Indicator Lamp (MIL), marking system malfunction on the motorcycle

Fuel Pump





Engine Control Module (ECM),
The processor or the brain of the
Injection Program.



Zilog
Z0840004PSC
Z80 CPU
8751

Crankshaft Position Sensor (CKP)



**Injector, to spray fuel into the
combustion chamber**



Engine Oil Temperature
Sensor (EOT)

Engine Coolant
Temperature Sensor (ECT)

Oxygen(O₂) Sensor



ECT

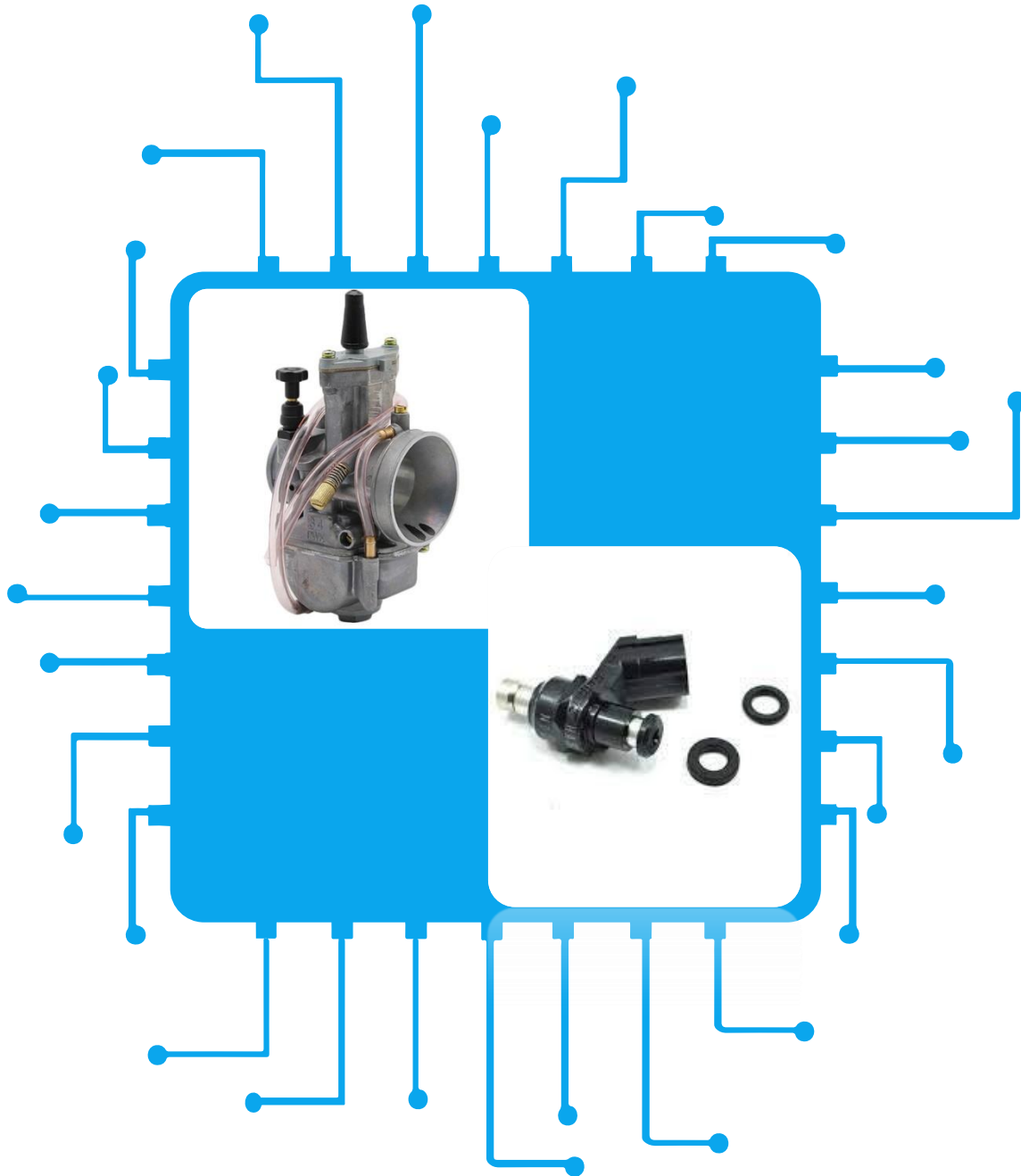
EOT

O2

AUTOMOTIVE ENGINEERING VOCATION

**TRAINING ABOUT CONVENTIONAL
MOTORCYCLE SERVICE (10/08 – 28/08)
“Colabs with Dinas Sosial Padang”**





DIFFERENCES BETWEEN CONVENTIONAL AND INJECTION MOTORCYCLE SYSTEMS

1. Injection has used electronic devices such as injectors whose job is to spray gasoline into the combustion chamber. While the carburetor still relies on the suction obtained from the movement of the piston in the cylinder.
2. The injection system can balance the volume of gasoline sprayed into the combustion chamber with the needs of the engine, in order to obtain efficient combustion results. As for the carburetor, gasoline is sucked in by the movement of the piston up and down, so how much gasoline is released depends on the movement of the piston.
3. In the gasoline distribution system, the injection system uses an electronic injector. While the carburetor is still using the open-close lid.
4. The injection system is much simpler, especially when servicing. Simply open the air filter, then clean it. While the carburetor, have to dismantle the carburetor body to clean it.

AUTOMOTIVE ENGINEERING VOCATION

**TRAINING ABOUT CONVENTIONAL
MOTORCYCLE SERVICE (31/08 – 11/09)
“Colabs with TNI and POLRI”**





THANK YOU