



# KARMOUT ISMAIL

## WDM ENGINEER

---

### PROFILE

I'm Ismail KARMOUT, a WDM Transmission Engineer specializing in optical networks and transmission technologies (DWDM, OTN, SDH). With hands-on experience in multi-vendor environments (Huawei, Nokia, ZTE, Ericsson), I focus on ensuring high availability, performance monitoring, and intelligent network protection. Passionate about technological innovation, I also explore how AI and data analysis can enhance network optimization and predictive maintenance. My goal is to combine strong transmission expertise with modern digital tools to solve complex real-world telecom challenges

---

### EDUCATION

- **Master Artificial Intelligence and Data Analysis** 2022-2024  
Faculty of Sciences Meknes FSM
  - **License Science and Technology Option Software Engineering** 2022  
Faculty of Science and Technology of Errachidia
  - **Diploma Duest Specialty Mathematics Physical & Computer Science** 2021  
Faculty of Science and Technology of Errachidia
  - **BACCALAUREATE in Physics Sciences French Option** 2019  
Tafilalet High School- ERRACHIDIA
- 

### EXPERIENCES & CERTIFICATE & PROJECTS

- **MAROC TELECOM - in progress**

2 years at "National Transmission Support Center"

- Ensure customer support delivery and transmission network maintenance
- Skilled in ASON /NGWDM, DWDM, SDH and NGSDH+ transmission products specializing in network maintenance
- Managed Huawei transmission products including OSN 6800, OSN 8800, OSN 9800)
- Managed NOKIA transmission products including WDM/NGWDM 1830-PSS32-PSS36
- Managed Ericsson / ZTE transmission products
- Create links in different rates
- Monitoring of WDM Network
- Ensure preventive maintenance and network health check for optical network.
- Trouble shooting alarms
- Protection ASON/SNCP
- Tracking tickets with venders

## • CERTIFICATE

- ZTE-OTN Operation and Maintenance Training
- Huawei-OptiX OSN 9800 2nd Line Operation & Maintenance Training.
- ALCATEL SUBMARINE NETWORKS MARINE- Training Type AB WEST AFRICA

## • PROJECTS

- SDH to DWDM/ASON Network Migration Project  
Led the transition from legacy SDH to high-capacity DWDM with ASON functionality  
Objective: increase network bandwidth and reduce operational costs.
- Deployment of 10G / 100G Optical Links Between Sites  
Successfully implemented high-speed inter-site optical connections.  
Included validation, testing, and integration into the existing network.
- Centralized WDM Network Monitoring Implementation  
Integrated multiple transmission devices into a centralized NMS platform.  
Trained NOC staff to use Huawei U2000 / Nokia NFM-T for 24/7 supervision.
- Optical Network Health Check Audit  
Performed preventive audits on WDM/OTN networks using KPIs (OSNR, BER, power levels).  
Delivered optimization recommendations based on analysis.
- ASON/SNCP Protection and Failover Simulation  
Simulated protection switching scenarios to verify automatic rerouting.  
Documented test results and prepared technical assessment reports.

## SKILLS

- Configuration of OTN (Optical Transport Network) services
- Network topology design (ring, mesh, point-to-point)
- Proficient with NMS tools (Huawei U2000, Nokia 1830 NFM-T, ZTE NetNumen)
- Protection protocols: SNCP, MSP, OCHP, ODUk-SNCP
- Performance analysis: OSNR, BER testing, latency monitoring
- Optical network capacity planning and evolution
- OTDR testing and optical power measurement
- MOP (Method of Procedure) documentation and execution
- Familiar with ITU-T standards (G.709, G.872, G.694.1)
- Equipment security and access control (telnet/SSH, ACLs)

## LANGUAGES

- Arabic (Native proficiency)
- French (Advance)
- English (Good level)