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CAPACITY DEVELOPMENT CONFERENCE 2023 (CDC23)

11 - 12 OCTOBER 2023 | Grand Hyatt Kuala Lumpur, MALAYSIA

Assessment of Competency Gap to Enhance Workforce Performance in 5G Verticals

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INTRODUCTION

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- **Malaysian workers ranked 27th (out of 64 countries) in digital competitiveness and 28th in talent (IIMD, 2021).**
- **Malaysia underperformed in digital skills institutions, research intensity, government support, and digital responsiveness (Wiley, 2021).**

To identify the perception of industry players on changes due to 5G deployment related to human resources and capacity-building requirements

RESEARCH OBJECTIVE 1

To identify the capacity-building gap in 5G verticals for capacity-building programmes in the future

RESEARCH OBJECTIVE 2

To recommend critical capacity-building programmes for future workforce competency requirements in 5G verticals

RESEARCH OBJECTIVE 3

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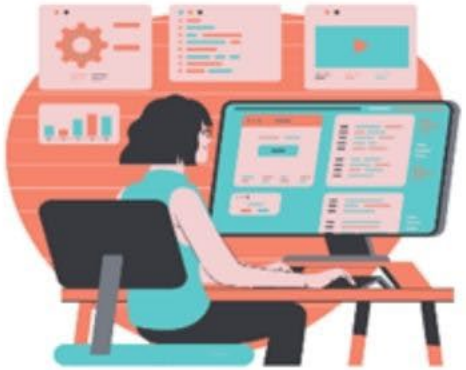
ANNOUNCEMENT

ONLINE SURVEY AND EXPRESSION OF INTEREST IN THE

5G IN THE TRANSPORT, TELECOMMUNICATIONS AND AGRICULTURE INDUSTRIES FORUM (5G-TTAIF) 2022

to know the potential roles of 5G digital skills for existing and future transport, telecommunications and agriculture industries workforce.

https://rb.gy/5iueo3



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KEY FINDING 1:
7) RETAIL VERTICAL

- **5G implementation financially burdens service companies.**
- **Some service companies will fail to adopt 5G by 2026 due to:**

1. **security threats to 5G network, i.e. increased cyberattacks, ransomware, data breaches.**
2. **shortage of skilled 5G workers in service companies e.g digital fintech, insurance & financial credit checks.**
3. **Systems migration & integration capacity gap, e.g legacy systems incompatible with 5G.**

KEY FINDINGS 2: CAPACITY BUILDING GAPS

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Hard skills

- Radio Frequency (RF) Engineering
- Network Design and Architecture
- Cybersecurity
- AI & Machine Learning
- Software-Defined Networking (SDN)
- Network Function Virtualization (NFV)

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Capacity gaps in telecommunications vertical

Telecom service provider workforce

- was **lacking the skills to manage & analyze large amounts of data**.

Regulators & policymaker

- need to **accelerate policy reforms, clarification & dissemination** on issues related to data privacy, data security & health safeguards in 5G.

Network equipment vendors

- need to build up capacity in **multiple device support,** deliver 5G-speed data transfers & provide stable and reliable connectivity in high-population areas.

Device manufacturers

- have capacity gaps in **underdevelopment & low production of high-speed data transfer devices**, low latency of 5G networks, lack of battery capacity of mobile devices, and high costs of device production.

Application developers

- lacking skills to develop **apps utilizing AR/VR, high-speed cloud computing,** low-latency video recording & high-speed real-time video playback.

KEY FINDING 3: CAPACITY-BUILDING FOR WORKFORCE COMPETENCY

- Ericsson, Nokia, Huawei & Qualcomm trained internal staff & customers on 5G RAN even before the first 5G networks were launched.
- They were able to because:

1. industry leaders in 5G adoption
2. possess expertise and financial resources to develop capacity-building programs
3. Their certification & recertification exams also generated revenue for the companies.

CONCLUSION

In sum, Malaysia's 5G progress in each vertical is determined by the ability to build capacity, nurture technical expertise & foster a supportive ecosystem.

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ANUGERAH GERAN KAJIAN MASYARAKAT DIGITAL (DSRG)
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Thank You