Faculty of Vocational and Technology Education,
Alvan Ikoku Federal University of Education, Owerri

Journal of Occupation and Training (JOT)
Volume 9, Number 1 April, 2025
Print ISSN: 3446 - 6290
Electronic ISSN: 2354 2756

DOI: 10.48028/iiprds/jot.v9.i1.02

Sustainable Skills-Set Needed by Auto Mechanics Graduates in Operational Technology (O.T) Cybersecurity for Establishing Automobile Workshops in Knowledge Based Economy in South East, Nigeria

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Abstract

In order to carry out this study, three research questions and three null hypotheses were formulated using descriptive survey research design. The entire population of 135 automobile technicians working in registered automobile firms and 27 automobile trades' teachers in technical colleges in South East, Nigeria was studied without sampling. A validated questionnaire with a reliability coefficient of 0.80 was used for data collection. Mean, standard deviation and t-test were used for data analysis. The study revealed that the identified OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills in the study were highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. Respondents do not differ significantly in their mean ratings on the identified OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The researchers concluded that the emergence of hybrid automobiles put additional pressures on automobile professionals to acquire the requisite O.T cyber-security skills for creating knowledge-based economy in the automotive industry in South East, Nigeria. It was recommended that automobile trades' teachers in South East, Nigeria should undergo professional training and development programmes with automobile cyber-security firms to acquire the basic and advanced OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills to prepare auto mechanics graduates for job opportunities in the knowledge-based economy

Keywords: *Knowledge based economy, Operational technology*

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Journal URL: https://internationalpolicybrief.org/journal-of-occupation-and-training-volume-9-number-1/

Background to the Study

In Nigeria, technical colleges are specialized post primary schools where students are taught technological skills in the forms of vocational trade crafts. Auto mechanics is one of the vocational trades offered at the technical college level as motor vehicle mechanics that entails exposing students to the engineering make-up of cars, bikes, trucks, buses and tricycles. According to Eze, Onwusa Oluyinka and Nwaosa (2020), auto-mechanics trade in technical colleges involves the application of scientific knowledge in the design, selection of materials, construction, operation and maintenance of automobiles. According to Thomas, Amaechi and Bassey (2023), the instructional outlay of auto mechanics covers testing, diagnosing, maintaining, servicing and repairing any fault relating to the conventional automobile and assembling main units and systems to the manufacturers' specifications. In a nutshell, the teaching of auto-mechanics trade in technical colleges provides a foundation for students to become automobile technicians. It is important therefore, that auto mechanics technicians are equipped with current skills and knowledge to be able to efficiently carry out maintenance work and repair modern automobiles

In recent times, the quick evolution of intelligent automobiles that led to the emergence of autonomous driving, connected cars and electric vehicles trigger a paradigm shift in the knowledge and technology base of the automotive industry. No wonder, self-driving Tesla cars and advanced driver-assistance systems with adaptive cruise control, driver fatigue detection and collision avoidance are currently in large production in today's automotive market (Halder, Ghosal & Conti, 2020). The propagation of these innovations is the manifestation of a knowledge-based economy. According to Alnafrah and Mouselli (2019), knowledge-based economy is the creation of products dependent on innovative knowledge and expertise that contribute to scientific and technological development. In the same vein, Barkhordari, Fattahi and Azimi (2019) averred that knowledge-based economy is a type of economy where there is a strategic combination of highly specialized knowledge and skills in order to produce a competitive workforce.

Knowledge based economy is a product of new knowledge, technologies and skills. According to Milewska (2018), knowledge-based economy requires a transition from a material perception of the economy to one that exploits human capital potentials and new technologies. Jednak and Kragulj (2015) mentioned three pillars of knowledge-based economy. The first pillar contains people who are willing to learn and share knowledge. The second pillar is the information infrastructure that enables the exchange of knowledge. The third pillar contains processes that facilitate sharing, codification and knowledge discovery. One can infer that knowledge-based economy is not reliant on the utilization of natural resources but on the development of educated and technology savvy citizenry that can produce innovations. Skilled individuals are the agents of a knowledge-based economy. With this in mind, the continuous transformation in fuel consumption, engine power, alternate energy sources and computer-assisted systems among others calls for the acquisition of sustainable skills-set needed to effect change in the automobile industry.

The emergence of connected cars and complex software and hardware chips that controls them, as well as the development of hybrid car engines and support systems, necessitated a growing concern about the security of the operational technology of these innovations. Operational Technology (OT) is a general term which refers to systems that monitor and control physical processes and structures of any system. According to the American Petroleum Institute (2014), operational technology represents the collection of hardware and software that helps to monitor, manage, and control physical devices and their related components and facilities used in industries. Operational technologies comprise hardware and software assets, tools, and procedures and processes used in critical operations in the automobile industry. As automobiles become more intelligent (Eiza & Ni, 2017), there is a rising trend towards adopting operational technologies in most of the software and hardware used in running and maintaining their infrastructure systems.

Operational technologies provide wireless connectivity in the systems of automobiles. This calls for protection against security risks and reaction to evolving threats by computer hackers (Ring, 2015). Ondrej, Johannes, Benjamin, Klaus and Gundbert (2020) submitted that the amount of computer codes and computerized hardware creates opportunity for cyber-attacks on the automobiles and all its operational components. This scenario creates room for the application of OT cyber-security in the automobile industry. Operational Technology cyber-security is the protection of the operational systems of automobiles from external attacks and vulnerabilities. As defined by Morris, Madzudzo and Garcia-Perez (2020), OT cyber-security in the automobile industry is the protection of vehicular electronic systems, communication networks, control algorithms, software and underlying data from malicious attacks, damage, unauthorized access or manipulation. Kennedy, Holt and Cheng (2019) professed those vulnerabilities of some infotainment systems and gaining control of microphones, speakers and navigation systems, and ex-employees breaching the company network and downloading large volumes of personal information of customers among others are reasons promoting the application of OT cyber-security in the automobile industry.

As the application of OT cyber-security in the automobile industry continues to increase, it leads to the creation of new knowledge, technology and skills which are the elements of the knowledge-based economy. According to Assenza, Faramondi, Oliva and Setola (2020), the OT cyber-security skills in the automobile industry cut across maintenance and protection, security monitoring and assessment, security design and engineering and respond and recover among others. For the purpose of the study, the researchers focused on OT Cybersecurity Operations Analyst, OT Penetration Tester and OT Vulnerability Assessor skills-set in cyber-security monitoring and assessment. OT cyber-security operations analysts are responsible for performing comprehensive surveillance and monitoring of the OT environment on automobiles to meet the standards of the automobile industry. OT penetration testers are responsible for performing threat analysis on the OT environment on automobiles to determine if the OT meets the standards of the automobile industry. OT vulnerability assessors are responsible for performing proper defence mechanisms on the OT environment on automobiles to determine if the OT meets the standards of the automobile industry.

This means that auto mechanics graduates who want to participate successfully in the knowledge-based economy must acquire OT cyber-security skills-set to set up entrepreneurial workshops for handling modern automobiles with hybrid engines and engineering systems. Amadike and Ochogba (2018) described workshop as a place or building where technology products are produced or repaired through technological manipulations. In the knowledge-based economy, auto mechanics graduates can establish their own workshops and provide diverse OT cyber-security services for users of modern automobiles in South East, Nigeria. Users of modern automobiles relying more on wireless updates and hardware installation and repairs from experts in Lagos and Abuja will be a thing of the past if auto mechanics graduates in the South East, Nigeria have the technical know-how to set up workshops for modern automobiles.

The problem of the study is that auto mechanics graduates in the South East, Nigeria will not participate in the business opportunities of the 21st century automobile market if they are not acquired with OT cyber-security skills-set of the knowledge-based economy. From literature gathered, there seems to be no holistic empirical study on the skills-set needed by auto mechanics graduates in O.T cyber-security for establishing automobile workshops in knowledge-based economy in South East, Nigeria. Against this backdrop, the study sought to determine the sustainable skills-set needed by auto mechanics graduates in O.T cyber-security for establishing automobile workshops in knowledge-based economy in South East, Nigeria.

Purpose of the Study

The study was designed to determine the sustainable skills-set needed by auto mechanics graduates in O.T cyber-security for establishing automobile workshops in knowledge-based economy in South East, Nigeria. Specifically, the study sought to determine:

1. OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria.
2. OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria.
3. OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria.

Research Questions

The following research questions guided the study:

1. What is the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?
2. What are the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

3. What are the OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria
2. There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?
3. There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

Method

The study adopted descriptive survey research design. According to Nworgu (2015), descriptive survey research design is a research design which aim at collecting data and describing in a systematic manner the characteristics, features or facts of a given population on a research problem. The researchers used this research design because the study surveyed the opinions of automobile technicians and automobile trades' teachers in South-East Nigeria on the sustainable skills-set needed in O.T cyber-security for establishing automobile workshops in knowledge-based economy with the use of questionnaire. The population for the study comprised 135 automobile technicians currently working in registered automobile firms and 27 automobile trades' teachers in technical colleges in South East, Nigeria. The entire population was studied without sampling because the population was manageable.

A structured and validated questionnaire containing 24 items on a five-point rating scale of Very Highly Needed (VHN), Highly Needed (HN), Moderately Needed (MN), Slightly Needed (SN) and Not Needed (NN) was used for data collection. Face validity of the instrument was determined by three experts; one expert in Technology and Vocational Education and Computer Science respectively and another in Measurement and Evaluation unit of Department of Educational Foundations all from Nnamdi Azikiwe University, Awka. A pilot test was conducted to establish the internal consistency of the instrument by administering it to 10 automobile technicians and automobile trades' teachers in Delta State which were not part of the study and the data collected were analyzed using Cronbach alpha to obtain reliability coefficients of 0.84, 0.76 and 0.81 for the different clusters with an overall coefficient of 0.80.

The researchers administered and collected the instrument to the subjects in their offices and workshops with the help of five research assistants and this exercise lasted for two weeks. Out of the 162 copies of the questionnaire administered, 147 copies (representing 91 percent) were successfully retrieved and used for data analysis. Mean and standard deviation were used to analyse data collected in relations to the research questions. While mean was used to answer the research questions, standard deviation was used to determine the homogeneity of the respondents' views. Decision on the questionnaire items was based on the real number relative to the real limits of numbers as:

Response	**Rating Scale**	**Real Limit of Numbers**
Very Highly Needed (VHN)	5	4.50 – 5.00
Highly Needed (NN)	4	3.50 – 4.49
Moderately Needed (MN)	3	2.50 – 3.49
Slightly Needed (SN)	2	1.50 – 2.49
Not Needed (NN)	1	1.00 – 1.49

The t-test was used to test the null hypotheses at 0.05 level of significance. A hypothesis was accepted where the p-value was greater than the alpha level of 0.05 ($p > 0.05$), at an appropriate degree of freedom; otherwise, the null hypothesis was rejected. Data collected were analysed using SPSS version 23.0.

Results

Research Question 1

What is the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

Data relating to this research question were analysed and presented in Table 1

Table 1: Respondents' mean ratings on OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

S/N	OT Cyber-Security Operations Analyst Skills-Set	X	SD	Remark
1	Ability to provide technical information to support the eradication of cyber-security incidents on automobiles	4.38	.70	Highly Needed
2.	Ability to provide technical information to support the triaging of cyber-security incidents on automobiles	4.27	.46	Highly Needed
3.	Ability to prepare metrics reports on cyber-security related issues on automobiles operational technology	4.09	.85	Highly Needed
4	Ability to set up indicators to detect cyber-attacks on automobiles operational technology	3.82	.51	Highly Needed
5	Ability to support investigations by collecting relevant data during cyber incidents on automobiles	3.76	.43	Highly Needed
6	Ability to provide technical recommendations to improve cyber-security posture on automobiles operational technology	3.94	.69	Highly Needed
7	Ability to provide technical recommendations to maintain cyber-security posture on automobiles operational technology	4.11	.88	Highly Needed
8	Ability to mitigate incidents to recover compromised systems of automobiles to acceptable levels of confidentiality, integrity and availability	4.40	.57	Highly Needed
	Cluster Mean	4.10	.64	Highly Needed

Data in Table 1 show that all the eight items listed on OT cyber-security operations analyst skills-set were highly needed by respondents with mean ratings ranging from 3.76 to 4.40. The cluster mean score of 4.10 indicates that OT cyber-security operations analyst skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The standard deviations for all the items are within 0.43 to 0.88. This shows that the respondents are not wide apart in their ratings.

Research Question 2

What are the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

Table 2: Respondents' mean ratings on OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

S/N	OT penetration tester skills-set	X	SD	Remarks
1	Ability to perform comprehensive activities to identify exploitable vulnerabilities on automobiles operational technology	4.22	.54	Highly Needed
2	Ability to prepare penetration testing reports on automobiles operational technology	3.99	.78	Highly Needed
3	Ability to use physical technologies to identify potential avenues of external attacks on automobiles operational technology	3.87	.85	Highly Needed
4	Ability to use digital technologies to identify potential avenues of external attacks on automobiles operational technology	4.14	.67	Highly Needed
5	Ability to perform threat and risk analysis on automobiles operational technology	4.28	.50	Highly Needed
6	Ability to provide cyber-security posture improvements on automobiles operational technology	4.00	.73	Highly Needed
7	Ability to conduct technical analysis on possible threats that might affect the physical safety of automobiles operational technology	3.71	.86	Highly Needed
8	Ability to conduct in-depth target analysis on possible threats that might affect the defence of automobiles operational technology	4.25	.63	Highly Needed
	Cluster Mean	**4.06**	**.70**	**Highly Needed**

Data in Table 2 show that all the eight items listed on OT penetration tester skills-set were highly needed by respondents with mean ratings ranging from 3.71 to 4.28. The cluster mean score of 4.06 indicates that OT penetration tester skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The standard deviations for all the items are within 0.50 to 0.86. This shows that the respondents are not wide apart in their ratings.

Research Question 3

What are the OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria?

Data relating to this research question are analyzed and presented in Table 3.

Table 3: Respondents' mean ratings on OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

S/N	OT vulnerability assessor skills-set	X	SD	Remarks
1	Ability to perform technical risk analysis on automobiles operational technology	4.42	.80	Highly Needed
2	Ability to carry out vulnerability scans on automobiles operational technology	4.36	.67	Highly Needed
3	Ability to prioritize vulnerabilities that might affect the defence of automobiles operational technology	4.30	.92	Highly Needed
4	Ability to execute maintenance protocols on vulnerability management tools for automobiles operational technology	4.25	.76	Highly Needed
5	Ability to operate vulnerability management systems on automobiles operational technology	4.34	.84	Highly Needed
6	Ability to identify vulnerability gaps in existing security controls on automobiles operational technology	4.21	.91	Highly Needed
7	Ability to perform discovery of missing patches on automobiles operational technology	4.16	.78	Highly Needed
8	Ability to perform correction of misconfiguration on automobiles operational technology	4.28	.65	Highly Needed
	Cluster Mean	**4.29**	**.79**	**Highly Needed**

Data in Table 3 show that all the eight items listed on OT vulnerability assessor skills-set skills-set were highly needed by respondents with mean ratings ranging from 4.16 to 4.42. The cluster mean score of 4.29 indicates that OT vulnerability assessor skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The standard deviations for all the items are within 0.65 to 0.92. This shows that the respondents are not wide apart in their ratings.

Hypothesis 1

There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

Table 4: Summary of t-test analysis of respondents' mean ratings on the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy

Variable	N	X	SD	df	t-value	p-value	Decision
Automobile technicians	125	75.98	6.43	145	0.206	0.337	Not Significant
Automobile trades' teachers	22	63.59	5.65				

Table 4 shows that there is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT cyber-security operations analyst skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. This is shown by the p-value of 0.337, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups is therefore accepted.

Hypothesis 2

There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

Table 5: Summary of t-test analysis of respondents' mean ratings on the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy

Variable	N	X	SD	df	t-value	p-value	Decision
Automobile technicians	125	77.05	8.51	145	1.024	0.162	Not Significant
Automobile trades' teachers	22	68.84	6.37				

Table 5 shows that there is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT penetration tester skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. This is shown by the p-value of 0.162, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups is therefore accepted.

Hypothesis 3

There is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT vulnerability assessor skills-set needed by auto

mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria

Table 6: Summary of t-test analysis of respondents' mean ratings on the OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy

Variable	N	X	SD	df	t-value	p-value	Decision
Automobile technicians	125	81.91	9.23	145	1.294	0.279	Not Significant
Automobile trades' Teachers	22	74.65	8.98				

Table 6 shows that there is no significant difference in the mean ratings of automobile technicians and automobile trades' teachers on the OT vulnerability assessor skills-set needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. This is shown by the p-value of 0.279, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups is therefore accepted.

Discussion of Findings

The outcome of the study revealed that OT cyber-security operations analyst skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The findings of this study agree with Rizvi, Willet, Perino, Marasco and Condo (2017) who reported that OT cyber-security operations analyst skills-set are needed by auto-workshop professionals to establish and drive cyber-security strategies, policies, standards and guidelines of automobiles operational technology. Based on the findings, the researchers believed that OT cyber-security operations analyst skills-set are highly needed because they will help auto mechanics graduates get familiar with various cyber security standards, protocols and frameworks to establish automobile workshops in the knowledge-based economy in South East, Nigeria

The outcome of the study disclosed that OT penetration tester skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in the knowledge-based economy in South East, Nigeria. This finding is in tandem with Liu, Zhang, Sun and Shi (2017) who reported that OT penetration tester skills-set are needed by auto-workshop professionals to improve and maintain cyber-security posture of automobiles operational technology. Based on the finding, the researchers believed that OT penetration tester skills-set are highly needed to establish automobile workshops in knowledge-based economy in South East, Nigeria because they will help auto mechanics graduates get familiar with various procedures to improve cyber-security posture and respond to cyber incidents on automobiles operational technology.

The study further disclosed that OT vulnerability assessor skills-set are highly needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. This finding is consistent with Amin and Tariq (2015) who reported that that OT vulnerability assessor skills-set are needed by auto-workshop professionals to obtain critical information and data with regards to vulnerabilities and work with relevant cyber-security personnel to prioritize threats and implement mitigation actions on automobiles operational technology. Based on the finding, the researchers believed that OT vulnerability assessor skills-set are highly needed because they will help auto mechanics graduates get familiar with the tools, standards, protocols and frameworks of vulnerability management to establish automobile workshops in knowledge-based economy in South East, Nigeria

Additionally, the study disclosed that automobile technicians and automobile trades' teachers do not differ significantly in their mean ratings on the identified OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria. The findings corroborate the findings of Eiza and Ni (2017) who reported that cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills are highly needed by auto-workshop professionals in order to carry out OT cyber-security risk assessment and mitigation on automobiles. This finding means that automobile technicians and automobile trades' teachers shared the same position regarding OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills needed by auto mechanics graduates for establishing automobile workshops in knowledge-based economy in South East, Nigeria.

Conclusion

Knowledge-based economy creates, distributes and applies new knowledge and skills for the transformation of the society. It is not surprising that knowledge-based economy provides additional specialization in the automobile industry in the area of operational technology cyber-security. Based on the findings of the study, the researchers concluded that the emergence of hybrid automobiles put additional pressures on automobile professionals to acquire the requisite O.T cyber-security skills for creating knowledge-based economy in the automotive industry in South East, Nigeria.

Recommendations

Based on the conclusions made, the following recommendations were made:

1. Automobile trades' teachers in South East, Nigeria should undergo professional training and development programmes with automobile cyber-security firms to acquire the basic and advanced OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills to prepare auto mechanics graduates for job opportunities in the knowledge-based economy
2. Automobile technicians in South East, Nigeria should embark on training and re-training on cyber-security in order to acquire the basic and advanced OT cyber-

security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills with which to maintain and improve the security of modern automobiles in their workshops.

3. The National Board for Technical Education (NBTE) should integrate the all identified OT cyber-security operations analyst skills, OT penetration tester skills and OT vulnerability assessor skills needed by auto mechanics graduates in the study into auto mechanics curriculum to equip students with the necessary skills for establishing and sustaining automobile workshops upon graduation in the society

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