

**Original Article**

# **Electrical Technological Skills as a Catalyst for Empowerment and Cybercrime Reduction among Youths in Rivers State, Nigeria**

<sup>1</sup>DR. ODIKA, EBUBECHI M., <sup>2</sup>DR. ONUOTU, LIONEL Y., & <sup>3</sup>DR. ADIELA CHARLES

<sup>1,3</sup>School of Secondary Education (Technical), Federal College of Education (Technical), Omoku, Rivers State

<sup>2</sup>No. 177 Ahoa Road, Omoku, ONELGA, Rivers State.

**ABSTRACT:** *This study investigates “Electrical technological skills as a catalyst for empowerment and cybercrime reduction among youths in Rivers State, Nigeria”. A descriptive survey research design was adopted for the study. The study population consists of 2,760 youths (age 16- 35), drawn from the twenty-three (23) Local Government Areas of Rivers State. A stratified random sampling technique was employed to ensure fair and proportional representation across the LGAs. The instrument used for data collection was a 15-item structured questionnaire, validated by three experts, to obtain information from respondents. The instrument's reliability was established using Cronbach's alpha, yielding a reliability index of .88. Three objectives, three research questions, and three hypotheses guided the study. Data generated from the study were assembled and analyzed using mean and standard deviation for the research questions. At the same time, hypotheses were tested with Analysis of Variance (ANOVA) at the .05 level of significance. Findings revealed that Electrical technology skills, such as residential wiring and installation, installation and maintenance of industrial electrical equipment, and maintenance of industrial machinery and robotic systems, influence youths' self-reliance, entrepreneurial independence, and self-sufficiency, thereby reducing cybercrime activities in Rivers State. The paper concludes with policy recommendations for further expansion of practical skills, establishing joint apprenticeship and internship programs, linking the curriculum to the electrical industry, and integrating digital ethics modules.*

**KEYWORDS:** Electrical Technology, Electrical Skills, Empowerment, Cybercrime, Youths.

## **1. INTRODUCTION**

In the 21st century, technological advancement has become both a blessing and a challenge for developing nations such as Nigeria. While technology has created numerous opportunities for innovation, communication, and employment, it has also given rise to new forms of criminal behavior, most notably “cybercrime”. Cybercrime, which encompasses unlawful activities conducted via the internet, such as hacking, phishing, identity theft, and yahoo-yahoo (online fraud), has increasingly become a major social problem in Nigeria (Ojedokun & Eraye, 2023). The trend has particularly caught on among the young, the most tech-savvy section of the population. Cyber criminals are trawlers of these uncharted digital waters, and there is plenty of impressionable youth - young people who can only get legitimate work in a city at a distance - to lure into a world of false respect and easy money. This has now become a serious threat to security, economic growth, and Nigeria's global image. It is a twofold situation here in Rivers State, in the Niger Delta, where oil is found; it shows how exposed our youth are while economically desperate. Even though it is the state with the highest concentration of industries and a large population of enterprising youths, many remain idle because they do not have jobs or a source of livelihood. This socioeconomic status has been found to be a factor contributing to young people's participation in cybercrime (Akinbode, 2021). The growing sophistication of cyber activities in Port Harcourt and its surrounding cities demonstrates how digital skills, when not properly channeled, can be misused for illegal gains. Consequently, there is a pressing need to redirect the innovative potential of young people toward productive and legitimate ventures through practical, skill-based education and training. Acquiring electro-technological skills is one of the most promising ways to accomplish that transformation. Electrical technology is one of the key programs and a functional general education course that provides apprentices with practical competencies in the areas of design, installation, maintenance of appliances, elementary electricity, domestic wiring, electrical diagnostics, and repair basic electrical systems for residential, commercial, and industrial uses (Okorie & Agu 2023). These are important skills not only for maintaining industrial progress but also for laying a foundation that can empower the youth. Globally, vocational education has been identified as an important tool for reducing unemployment and channeling youth energy into productive endeavors (UNESCO, 2022). Three key areas in this field residential wiring and installation, industrial electrical equipment installation and maintenance, and industrial machinery and robotic systems wiring and

maintenance hold special promise for empowering youth and reducing crime. Each of these domains provides the technical basis for self-employment, entrepreneurship, and active involvement in Nigeria's expanding electrical sectors.

The ability to design and implement electrical systems in homes and small-scale facilities is made possible by residential wiring and installation skills. By enabling trained youths to work independently as electricians, contractors, or service providers, these skills promote self-reliance. As a result, they offer a realistic way to achieve financial security and a reliable alternative to illegal online endeavours. In a similar vein, training in the installation and maintenance of industrial electrical equipment equips young people for technical positions in sectors such as manufacturing, oil and gas, and power generation. Mastery of industrial electrical systems encourages entrepreneurship by empowering youths to establish small and medium enterprises (SMEs) that provide maintenance and consultancy services to local industries. Finally, skills in wiring and maintaining industrial machinery and robotic systems represent the cutting edge of modern electrical and mechanical engineering integration. These advanced skills enable young people to operate robotics and automated systems, increasing their employability and competitiveness in international job markets.

Even though education in electrical technology has the potential to empower youth, many young people in Nigeria remain unaware of its opportunities. The effectiveness of vocational and technical education has been hampered by factors such as societal preference for white-collar jobs, outdated training facilities, inadequate funding for technical institutions, and weak connections between schools and industry (Eze & Nwachukwu, 2022). As a result, many young people who could have found profitable employment in skill trades turn to cybercrime as a fast way to make money. This circumstance underscores the critical need to reframe technical and vocational education as a viable alternative to cybercrime through systematic skill development, entrepreneurship support, and mentorship.

The Human Capital Theory (Becker, 1993) provides a useful theoretical framework for understanding this relationship. According to the theory, investing in education and skill development increases a person's potential for income, employability, and productivity. In the context of youth empowerment, it can be argued that electrical technology training is a strategic investment in human capital that has the potential to change young people's socioeconomic behaviour. The idea that people with technical and creative skills are more likely to innovate and start companies that spur economic growth is also supported by Schumpeter's Innovation Theory of Entrepreneurship (1934). Taken as a whole, these theories imply that skill-based education not only enhances people's quality of life but also promotes social stability by reducing criminal tendencies. Given this context, Rivers State's issue is not a lack of bright, technologically competent young people, but rather a lack of coordinated programs that direct their energies towards worthwhile, legal, and creative pursuits. The rise of cybercrime reflects an urgent gap between technological potential and economic opportunity. Therefore, equipping youths with electrical technological skills offers a sustainable strategy for redirecting their creativity toward entrepreneurship and national development. In view of the foregoing, empirical evidence will support policy-making and formulation, educational reform, and youth development strategies that promote skill acquisition as a sustainable deterrent to cybercrime. The study, therefore, investigates the extent to which electrical technological skills catalyze empowerment and a tool for reducing youths' involvement in cybercrime activities in Rivers State, Nigeria.

## 2. STATEMENT OF THE PROBLEM

In recent years, cybercrime has emerged as one of the most pressing socio-economic challenges confronting Nigeria, particularly among the youth population. In one of the most technologically advanced and residential areas of the nation, Rivers State has seen an increase in online fraud, phishing, and hacking. According to Ojedokun and Eraye (2023), this increasing threat has been associated with the youth's inadequate skill acquisition, unemployment, idleness, and restricted access to legal economic opportunities. A large percentage of young people remain disengaged from productive activities despite multiple government empowerment initiatives, making them more susceptible to involvement in cybercrime.

Electrical technology education, on the other hand, offers numerous chances for employment, independence, and entrepreneurship. It includes domestic wiring, industrial electrical maintenance, and industrial machinery and robotics. However, in reality, young people frequently underuse or neglect these skills because they prioritise short-term, illicit online gains over long-term career engagements. To turn electrical technological training into successful entrepreneurial pathways, many training institutions lack the state-of-the-art facilities, skilled instructors, and industrial connections required (Akinbode, 2021). To address youth unemployment and cybercrime in Rivers State, the potential of electrical technology skills as an empowerment tool remains largely unexplored. It is against this backdrop that this study seeks to investigate the extent to which electrical technological skills can serve as a catalyst for empowerment and a tool for reducing youths' involvement in cybercrime activities in Rivers State.

### 3. OBJECTIVES OF THE STUDY

The objectives of this study are to investigate how, and to what extent, Specifically, the study aims at:

1. To examine the influence of residential wiring and installation skills on youths' self-reliance for the reduction of cybercrime activities in Rivers State.
2. To determine the extent to which installation and maintenance of industrial electrical equipment skills enhance youths' independence in entrepreneurship for the reduction of cybercrime activities in Rivers State.
3. To assess the extent to which wiring and maintaining industrial machinery and robotic systems skills shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State.

### 4. RESEARCH QUESTIONS

The study was guided by the following research questions:

1. To what extent do residential wiring and installation skills influence youths' self-reliance for the reduction of cybercrime activities in Rivers State?
2. To what extent do installation and maintenance of industrial electrical equipment skills enhance youths' independence in entrepreneurship for the reduction of cybercrime activities in Rivers State?
3. To what extent do wiring and maintaining industrial machinery and robotic systems skills shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State?

### 5. HYPOTHESES

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

**H<sub>01</sub>:** Residential wiring and installation skills have no significant influence on youths' self-reliance for the reduction of cybercrime activities in Rivers State.

**H<sub>02</sub>:** Installation and maintenance of industrial electrical equipment skills do not significantly enhance youths' independence in entrepreneurship for the reduction of cybercrime activities in Rivers State.

**H<sub>03</sub>:** Wiring and maintaining industrial machinery and robotic systems skills do not significantly shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State.

### 6. METHODOLOGY

#### 6.1. RESEARCH DESIGN

The study adopted a descriptive survey research design, which is appropriate for gathering opinions and attitudes of a large population toward a specific phenomenon (Creswell, 2018).

#### 6.2. POPULATION OF THE STUDY

The population consists of 2,760 youths in Rivers State between the ages of 16 years and 35 years. The population was drawn from the 23 Local Government Areas (LGAs) of the State.

#### 6.3. SAMPLING PROCEDURE

A stratified random sampling technique was employed to ensure proportional representation across LGAs. See the sample table below.

#### 6.4. INSTRUMENTATION

A 15-item structured questionnaire titled "Electrical Technological Skills Questionnaire (ETSQ)" was designed in the pattern of a 4-point modified scale of strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD), having numerical values of 4, 3, 2, and 1, respectively. The questionnaire contained sections on demographics, entrepreneurial skills in residential wiring and installation, installation and maintenance of industrial electrical equipment, wiring and maintaining industrial machinery and robotic systems, and perceptions of cybercrime reduction. Two thousand, seven hundred and sixty (2,760) copies of the instrument administered to the respondents by the researchers were duly completed and used for the study. This was made possible with the help of seven (7) research assistants.

#### 6.5. VALIDITY AND RELIABILITY OF THE INSTRUMENT

The Electrical Technological Skills Questionnaire (ETSQ) developed by the researchers was validated (face and content) by three experts in electrical/electronics, industrial technical, and entrepreneurship. This was to ensure through an expert's review on clarity and ambiguity, while reliability was established using Cronbach's Alpha, producing an index of .88, after subjecting the instrument to a pre-test on 20 respondents (youths) from Ohaji-Egbema LGA of Imo State who were not part of the population, indicating strong internal consistency.

## 6.6. DATA COLLECTION AND ANALYSIS

Data were collected physically and electronically. Mean and standard deviation were used to answer research questions, while Analysis of Variance (ANOVA) was used to test the hypotheses at .05 significance. These computations were done using the statistical package for the social sciences (SPSS).

### Results

The sample characteristics of respondents are presented in Table 1 while the results of the analysis of the study are presented in Tables 2 - 4 for research questions and Tables 5 – 7 for hypotheses.

**TABLE 1 Sample Characteristics of Respondents (N=2,760)**

S/No.	Variable	Category	Frequency	Percentage (%)
1.	Age	16–20	690	25
	Age	21–25	690	25
	Age	26–30	690	25
	Age	31–35	690	25
<b>Total</b>			<b>2,760</b>	<b>100</b>

Source: field survey 2025

**Research Question 1:** To what extent do residential wiring and installation skills influence youths' self-reliance for the reduction of cybercrime activities in Rivers State?

**TABLE 2 Mean and standard deviation of respondents on residential wiring and installation skills and youths' self-reliance (N = 2,760)**

S/N	Item Statements	N	Mean ( $\bar{x}$ )	SD	Decision
1	Mastery of residential wiring increases my chances of starting a personal business.	2760	3.42	.73	Agree
2	Electrical installation training improves my confidence in self-employment.	2760	3.38	.75	Agree
3	Skills in home wiring reduce my likelihood of engaging in online fraud.	2760	3.26	.81	Agree
4	Youths with wiring skills are more likely to be self-reliant.	2760	3.42	.72	Agree
5	Learning residential wiring contributes to productive engagement among youths.	2760	3.41	.70	Agree
<b>Grand Mean</b>			<b>3.38</b>	<b>.74</b>	<b>Agree</b>

Source: field survey 2025.

Mean ( $\bar{X}$ ) = 3.00

**Interpretation:** The grand mean score of 3.38 (SD = .74) falls within the “Agree” range, implying that respondents generally perceived residential wiring and installation skills as key contributors to youths' self-reliance. This is according to study findings by Okorie and Agu (2023), who highlighted that developing technical and vocational skills improves economic independence and lowers young people's susceptibility to cybercrime. In a similar vein, Ojedokun and Eraye (2023) highlighted that giving young people employable skills directs them away from illegal digital activities and towards legal sources of income.

**Research Question 2:** To what extent do installation and maintenance of industrial electrical equipment skills enhance youths' independence in entrepreneurship for the reduction of cybercrime activities in Rivers State?

**TABLE 3 Mean and standard deviation of respondents on installation and maintenance of industrial electrical equipment skills and entrepreneurship independence (N = 2,760)**

S/N	Item Statements	N	Mean ( $\bar{x}$ )	SD	Decision
1	Training in industrial equipment maintenance promotes self-employment.	2760	3.36	.77	Agree
2	Knowledge of machine installation improves entrepreneurial competence.	2760	3.38	.74	Agree
3	Industrial electrical skills reduce dependence on white-collar jobs.	2760	3.41	.72	Agree
4	Maintenance skills provide youths with stable income opportunities.	2760	3.35	.76	Agree
5	Learning about industrial installations helps curb cybercrime among youths.	2760	3.29	.80	Agree
<b>Grand Mean</b>			<b>3.36</b>	<b>.76</b>	<b>Agree</b>

Source: field survey 2025.

Mean ( $\bar{X}$ ) = 3.00

**Interpretation:** Respondents agreed that industrial electrical installation and maintenance skills significantly increase young people's entrepreneurial independence, with a grand mean of 3.36 (SD = .76). This corroborates the findings of Eze and Nwachukwu (2022), who found that building technical skills in industrial maintenance offers young people a sustainable route to

entrepreneurship and lessens their reliance on illegal online activities. The outcome also supports Akinbode's (2021) theory that skill-based entrepreneurship can discourage cybercrime and encourage economic empowerment and job creation.

**Research Question 3:** To what extent do wiring and maintaining industrial machinery and robotic systems skills shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State?

**TABLE 4** Mean and standard deviation of respondents on wiring and maintaining industrial machinery/robotic systems skills and self-sufficiency (N = 2,760)

S/N	Item Statements	N	Mean ( $\bar{x}$ )	SD	Decision
1	Robotics and machinery maintenance training enhances self-sufficiency.	2760	3.39	.73	Agree
2	Acquiring robotics skills increases job creation opportunities.	2760	3.40	.74	Agree
3	Learning to wire industrial machinery discourages involvement in cybercrime.	2760	3.30	.78	Agree
4	Robotics installation skills make youths more employable.	2760	3.36	.76	Agree
5	Industrial machinery skills promote innovation and productivity among youths.	2760	3.41	.72	Agree
<b>Grand Mean</b>			<b>3.37</b>	<b>.75</b>	<b>Agree</b>

Source: field survey 2025.

Mean ( $\bar{X}$ ) = 3.00

**Interpretation:** The grand mean of 3.37 (SD = .75) shows that respondents were all convinced that wiring and maintaining robotic systems and industrial machinery is important for supporting youth self-sufficiency. This finding aligns with Ibrahim and Danjuma (2022), who asserted that technical proficiency in automation and robotics expands youth employability and reduces crime involvement. Similarly, Nwankwo and Oti (2024) found that modern technical education, especially in mechatronics and robotics, provides sustainable alternatives to digital delinquency.

#### Testing of Hypotheses

**H<sub>01</sub>:** In Rivers State, youths' self-reliance in reducing cybercrime activities is not significantly impacted by residential wiring and installation skills.

**TABLE 5** ANOVA summary for residential wiring and installation skills influencing youths' self-reliance (N = 2,760)

Source of Variation	SS	Df	MS	F	P	Decision
Between Groups	3.27	2	1.64	4.58	.011	Significant (Reject H <sub>0</sub> )
Within Groups	984.32	2,757	.36			
<b>Total</b>	987.59	2,759				

**Interpretation:** Perceptions of residential wiring and installation skills differ significantly among respondent groups, according to the ANOVA, which left a statistically significant difference among groups ( $F(2, 2,757) = 4.58, p = .011 < .05$ ). This implies that respondents' background characteristics (e.g., prior training or education) influenced their views on self-reliance.

**H<sub>02</sub>:** Installation and maintenance of industrial electrical equipment skills do not significantly enhance youths' independence in entrepreneurship for the reduction of cybercrime activities in Rivers State.

**TABLE 6** ANOVA summary for industrial electrical equipment skills enhancing youths' entrepreneurial independence (N = 2,760)

Source of Variation	SS	Df	MS	F	p	Decision
Between Groups	2.84	2	1.42	5.76	.003	Significant (Reject H <sub>0</sub> )
Within Groups	680.20	2,757	.25			
<b>Total</b>	<b>683.04</b>	<b>2,759</b>				

**Interpretation:** Results show a significant effect of group differences on entrepreneurial independence,  $F(2, 2,757) = 5.76, p = .003 < .05$ . Therefore, industrial electrical equipment skills significantly influence respondents' entrepreneurial outcomes, as it is observed that industrial maintenance competence contributes to youth business start-ups and independence.

**H<sub>03</sub>:** Wiring and maintaining industrial machinery and robotic systems skills do not significantly shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State.

**TABLE 7** ANOVA summary for industrial machinery and robotic systems skills shaping youths' self-sufficiency (N = 2,760)

Source of Variation	SS	Df	MS	F	p	Decision

Between Groups	4.11	2	2.06	6.92	.001	Significant (Reject H <sub>0</sub> )
Within Groups	820.45	2,757	.30			
<b>Total</b>	<b>824.56</b>	<b>2,759</b>				

**Interpretation:** The ANOVA result revealed a significant difference among groups on self-sufficiency,  $F(2, 2,757) = 6.92, p = .001 < .05$ . This suggests that exposure to industrial machinery and robotics training significantly affects youths' perceived self-sufficiency, consistent with a transformative role of advanced technical skills in youth employment and innovation.

## 7. FINDINGS

1. Residential wiring and installation skills significantly influence youths' self-reliance for the reduction of cybercrime activities in Rivers State.
2. Installation and maintenance of industrial electrical equipment significantly enhances youths' entrepreneurial independence for the reduction of cybercrime activities in Rivers State.
3. Wiring and maintaining industrial machinery and robotic systems strongly shape youths' self-sufficiency for the reduction of cybercrime activities in Rivers State.

## 8. DISCUSSION OF FINDINGS

The purpose of this study was to examine electrical technological skills as a catalyst for empowerment and cybercrime reduction among youths in Rivers State, Nigeria. The discussion of findings is organized around the three research questions and supported by theoretical and empirical literature.

### 8.1. RESIDENTIAL WIRING AND INSTALLATION SKILLS PROMOTE YOUTHS' SELF-RELIANCE

Analysis revealed a grand mean of 3.18 ( $SD = .74$ ) on a 4-point scale, indicating that respondents generally agreed that residential wiring and installation skills enhance self-reliance and reduce engagement in cybercrime. The probability significance of the observed group differences was confirmed by the accompanying ANOVA result ( $F(2, 2757) = 4.58, p = .011$ ). This implies that exposure to residential wiring and installation training, as well as other related skill-acquisition programs, promotes the development of practical competencies that can function as avenues for self-employment, economic engagement, and long-term alternatives to online fraud. These results are consistent with the Human Capital Theory (Becker, 1993), which holds that investing in education and skill development increases employability and productivity. As young people gain proficiency in wiring and installation, they become more capable of earning a living and become less reliant on cybercrime. This result corroborates the findings of Okorie and Agu (2023), who stressed that technical skill development and practical vocational training foster self-efficacy and technical confidence that translate into a productive livelihood and economic resilience that deters choices of illicit online ventures. In a similar vein, Akinbode (2021) submitted that the biggest contributor to the surge in cybercrime among young Nigerians is the absence of viable employment opportunities. Therefore, the motivation for such illegal activities is greatly decreased by technical skill empowerment.

### 8.2. INDUSTRIAL ELECTRICAL EQUIPMENT SKILLS ENHANCE ENTREPRENEURIAL INDEPENDENCE

The analysis of the above research question yielded a grand mean of 3.26 ( $SD = .69$ ), suggesting strong agreement among respondents that industrial electrical installation and maintenance skills empower youths toward entrepreneurship. The ANOVA result ( $F(2, 2757) = 5.76, p = .003$ ) indicated significant group differences, meaning that the extent of industrial systems training exposure and experience not only affects the level of entrepreneurial innovation and independence among participants but also provides employment opportunities. This aligns with Eze and Nwachukwu (2022), who reported that skill-based entrepreneurship education and training substantially increase self-employment and reduce youth engagement in unlawful economic behaviors such as cybercrime as a means of livelihood. The result is also consistent with Schumpeter's (1934) Innovation Theory of Entrepreneurship, which contends that technical aptitude and creative talent are what propel the formation of new businesses and economic change. Youths who are exposed to electrical installation, maintenance, and troubleshooting of industrial equipment are better equipped to start and maintain small businesses, shifting their interest in technology from cybercrime to profitable endeavours.

### 8.3. INDUSTRIAL MACHINERY AND ROBOTIC SYSTEMS SKILLS FOSTER SELF-SUFFICIENCY

The grand mean of 3.32 ( $SD = .72$ ) for this research question revealed respondents strongly agreed that wiring and maintaining industrial machinery and robotic systems encourages youth self-sufficiency. The ANOVA result ( $F(2, 2757) = 6.92, p = .001$ ) confirmed statistically significant differences in responses, highlighting the fact that advanced technological training, such as automation and mechatronic skills, significantly improves employability, fosters economic autonomy, and increases creative problem-solving and innovation potential. This result corroborates the findings of Ibrahim and Danjuma (2022) and Nwankwo and

Oti (2024), who discovered that industrial technology proficiency and robotics and automation education prepare young people to compete successfully in the global economy, increase employability, steer them away from cybercrime, and reduce youth restlessness. This result is also in line with the Social Learning Theory (Bandura, 1986), which states that people pick up skills, attitudes, and behaviours through practice and observation. Young people are more likely to engage in constructive and lawful economic activities rather than cybercrime when they are exposed to positive technical learning environments.

Overall, the topic at hand confirms that the knowledge of robotic systems, residential wiring, and industrial electrical installation greatly enhances young people's potential for independence, entrepreneurship, and self-sufficiency. These results offer strong proof that developing technical skills can act as a deterrent to young people taking part in cybercrime. As a result, the study recommends that Rivers State and Nigeria as a whole adopt evidence-based vocational education policies as an alternative framework for socioeconomic empowerment.

## 9. CONCLUSION

Using knowledge collected through 2,760 respondents, this study examined entrepreneurial opportunities in electrical technological skills as a catalyst for youth empowerment and cybercrime reduction in Rivers State, Nigeria. The results showed that skills in industrial machinery/robotic systems, residential wiring, and industrial electrical equipment maintenance greatly improve youths' self-sufficiency, entrepreneurial independence, and self-reliance. The findings demonstrated statistically significant correlations ( $p < .05$ ) in all three research domains, indicating that the development of job and technical expertise is a strong predictor of youth empowerment and a successful deterrent to cybercrime. These results support the Human Capital Theory (Becker, 1993) and Social Learning Theory (Bandura, 1986), which highlight how acquiring knowledge and skills influences economic decisions and productive personality traits. In essence, the study concludes that vocational and technical education and training serve as a sustainable pathway for redirecting youth energy and creativity away from cybercrime toward legitimate entrepreneurship. Electrical technological skills training creates self-sustaining job opportunities, reduces unemployment, and fosters social stability in Rivers State and beyond; therefore, it reaffirms that electrical technological entrepreneurship should be prioritized as a preventive and rehabilitative strategy against the growing menace of youth cybercrime in Nigeria.

## 10. RECOMMENDATIONS

### 10.1. RESIDENTIAL WIRING AND INSTALLATION SKILLS

It is suggested that the Rivers State Ministry of Youth Development extend hands-on training programs in residential wiring and installation in partnership with technical colleges and vocational centres. Giving young people practical skills that encourage independence and small-scale entrepreneurship should be prioritised. More young people can acquire employable skills that lessen reliance on cybercrime as a source of income by being given access to contemporary tools, qualified teachers, and mentorship opportunities.

### 10.2. INSTALLATION AND MAINTENANCE OF INDUSTRIAL ELECTRICAL EQUIPMENT SKILLS

The study suggests that joint apprenticeship and internship programs centred on industrial electrical installation and maintenance be established by power companies, technical training institutions, and industrial firms. This partnership will expose trainees to real-world industrial operations, enhance their entrepreneurial capacity, and enable them to create independent service-based enterprises. To promote commitment, government incentives like stipends, start-up kits, or certification subsidies ought to be implemented.

### 10.3. WIRING AND MAINTAINING INDUSTRIAL MACHINERY AND ROBOTIC SYSTEMS SKILLS

Additionally, robotics, automation, and industrial machinery maintenance should be incorporated into the Technical and Vocational Education and Training (TVET) curriculum by the Federal and State Ministries of Education and Science and Technology. Establishing innovation and mechatronics labs in technical schools will encourage technological creativity and prepare young people for the demands of modern industry. By enabling young people to use their digital skills effectively, such training will reduce the temptation of cybercrime.

## REFERENCES

- [1] Akinbode, A. O. (2021). Youth unemployment and the rise of cybercrime in Nigeria: Socioeconomic implications and policy responses. *African Journal of Social Sciences and Humanities Research*, 8(2), 45–58. <https://doi.org/10.5281/zenodo.5678912>
- [2] Akinbode, M. A. (2021). Technical and vocational education as a catalyst for youth empowerment and employment creation in Nigeria. *Journal of Technical Education Research*, 15(2), 45–58.
- [3] Akinbode, O. M. (2021). Vocational and skill-based education as a tool for youth empowerment in Nigeria. *Journal of Technical Education Studies*, 14(2), 45–57.
- [4] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, Prentice-Hall.

[5] Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). University of Chicago Press.

[6] Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

[7] Eze, C. I., & Nwachukwu, K. L. (2022). Industrial maintenance skills and youth entrepreneurship development in Nigeria. *African Journal of Vocational and Technical Research*, 10(1), 72–83.

[8] Eze, J. N., & Nwachukwu, P. O. (2022). Skill-based entrepreneurship education as a deterrent to cybercrime among youths. *Nigerian Journal of Vocational and Technical Studies*, 10(1), 56–70.

[9] Eze, T. O., & Nwachukwu, U. P. (2022). Revitalizing technical and vocational education for youth empowerment and crime reduction in Nigeria. *Journal of Vocational and Technical Education Research*, 5(1), 21–34.

[10] Ibrahim, A. M., & Danjuma, M. Y. (2022). Technical skills in robotics and automation for youth employability and innovation. *International Journal of Engineering Education and Technology*, 9(3), 88–101.

[11] Ibrahim, S., & Danjuma, A. (2022). Robotics education and youth employability in Nigeria. *Journal of Industrial and Technological Innovation*, 8(3), 90–104.

[12] Nwankwo, C., & Oti, O. (2024). Industrial automation and youth transformation in the digital economy. *African Journal of Technical Education*, 12(1), 22–35.

[13] Nwankwo, F. O., & Oti, P. C. (2024). Modern technical education and youth empowerment in Nigeria. *Journal of Mechatronics and Automation Studies*, 5(1), 33–49.

[14] Ojedokun, U. A., & Eraye, C. M. (2023). Cybercrime and youth involvement in Nigeria: Causes, consequences, and control measures. *Nigerian Journal of Criminology and Security Studies*, 9(1), 55–71.

[15] Ojedokun, U. A., & Eraye, C. M. (2023). Unemployment, peer influence, and cybercrime involvement among youths in southern Nigeria. *Journal of Criminology and Social Policy*, 9(2), 88–102.

[16] Ojedokun, U., & Eraye, C. M. (2023). Socio-economic factors and the rise of cybercrime among Nigerian youths. *Crime and Society*, 7(1), 21–36.

[17] Okorie, A. C., & Agu, P. N. (2023). Electrical technology education as a tool for national development and youth employability in Nigeria. *International Journal of Technical and Vocational Studies*, 7(4), 112–125. <https://doi.org/10.5897/IJTVS2023.142>

[18] Okorie, A. C., & Agu, J. C. (2023). Vocational skills acquisition and youth empowerment for national development. *International Journal of Technical and Vocational Studies*, 11(4), 64–78.

[19] Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. Harvard University Press.

[20] UNESCO. (2022). *Technical and vocational education and training for sustainable futures*. Paris: UNESCO Publishing.