UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

ARUSHA TECHNICAL COLLEGE

Training on
Research Methodology

Mastering Research Methodology in Both Computer and Social Science Research

24th-28th September 2024

1. About Arusha Technical College

Arusha Technical College (ATC) is a prestigious institution located in the vibrant city of Arusha, Tanzania—a gateway to the Serengeti and a hub of East African tourism. Established by the Government of Tanzania, ATC has grown into a renowned center of learning, offering cutting-edge education and research opportunities. The college is now poised to empower researchers and professionals with advanced skills in research methodologies, blending the best of both computer and social sciences.

2. About the Program

Join us for a transformative 5-day program on "Mastering Research Methodology in Both Computer and Social Science Research," held from September 23-27, 2024, at Arusha Technical College.

This intensive training is designed for educators, researchers, and professionals eager to sharpen their research skills in the breathtaking environment of Arusha—a city known for its pleasant weather, lush greenery, and proximity to some of the world's most famous natural wonders.

The program offers a unique combination of theoretical insights and practical applications, covering a wide range of research methodologies. From the intricacies of systematic literature reviews using AI tools to advanced statistical techniques and qualitative data analysis, participants will immerse themselves in a comprehensive learning experience that bridges the gap between computer science and social science research.

3. Objectives of the Program

Our expertly designed program aims to:

a) Expose participants to contemporary research methodologies and the full spectrum of the research process, including Problem Identification, Literature Review, Research Methodology, Data Collection and Analysis, and the Discussion and Interpretation of Results.

b) Build robust research capabilities among academicians, researchers, and professionals through hands-on training with state-of-the-art tools.

c) Empower participants to tackle complex research challenges by equipping them with a deep understanding of both qualitative and quantitative research techniques.

d) Provide comprehensive training in advanced research methodologies that span both computer and social sciences, ensuring participants are well-prepared to contribute to their fields.

e) Equip participants with practical skills in the latest software and tools for data analysis, systematic literature review, and research reporting.

4. Expected Outcomes of the Program

Participants will emerge from this program with a powerful set of skills essential for cutting-edge research across various domains. They will gain a deep understanding of advanced research methodologies, including the use of artificial intelligence for systematic literature reviews, and mastery of statistical techniques such as hypothesis testing, analysis of variance, correlation, and regression analysis.

The program emphasizes practical knowledge, offering hands-on experience with tools like SPSS, Nvivo, and R Programming, Ms Power BI, all within the context of both computer and social science research.

More specifically, by the end of the course, participants will be fully equipped to:

- Identify and articulate research problems specific to their disciplines, recognizing gaps in existing knowledge and formulating precise research questions and hypotheses.

- Conduct comprehensive literature reviews, utilizing AI tools to efficiently source and synthesize relevant research, and develop strong theoretical frameworks.

- Apply diverse research designs—from experimental to non-experimental— tailored to both qualitative and quantitative research questions.

- Analyze data with advanced techniques, using SPSS for statistical analysis, Nvivo for qualitative research, and R Programming for statistical data analysis.

- Present their findings effectively, connecting results to broader academic and industry literature, addressing research limitations, and suggesting avenues for future research.

- Participants will be able to effectively create, analyze, and share dynamic data visualizations and dashboards using MS Power BI.

5. Target Audience

- This course is ideal for academicians, researchers, data analysts, business intelligence professionals, and anyone interested in mastering MS Power BI for data visualization and analytics.

6. Prerequisites

- Participants should have a basic understanding of data concepts and familiarity with Excel or similar data tools. No prior experience with Power BI is required.

7. Program Details

- **Fee**: **TSHS 1,650,000/=** covering tuition fee, breakfast, lunch, and refreshments.

- **Duration**: 5 Days (September 24-28, 2024).

- **Location**: Arusha Technical College, Arusha, Tanzania—a city famed for its tourism appeal, offering a serene and inspiring environment for learning and research.

8. Award

Certificate of completion

9. Why Choose Arusha Technical College for This Course?

ATC's unique value proposition lies in our commitment to providing education that not only imparts knowledge but also fosters practical skills. Our hands-on, competence-based learning approach distinguishes us from other institutions. As a center of excellence in the East African region, ATC offers a well-rounded educational experience that combines academic rigor with real-world application, particularly in engineering and technology disciplines.

Our location in Arusha, a hub of commerce, tourism, and the headquarters of the East African Community, provides a dynamic environment for learning and research. This strategic location, coupled with our state-of-the-art facilities, highly qualified faculty, and a curriculum that integrates the latest technological

advancements, makes ATC the ideal place to master research methodologies applicable to both computer science and social sciences.

The Directorate of Research, Consultancy, and Publication at ATC ensures that our courses are constantly updated to reflect the latest trends and methodologies in research. This program, "Mastering Research Methodology in Both Computer and Social Science Research," is a testament to our commitment to providing education that is relevant, practical, and forward-thinking.

By choosing ATC, you are selecting a college that not only provides education but also empowers you with the skills and knowledge to make a tangible difference in the engineering, computer science, and applied science sectors.

10. Why should you come in Arusha?

Arusha isn't just a city; it's an experience. As you dive deep into mastering research methodologies, you'll be surrounded by the natural beauty and tranquility that only Arusha can offer. With its lush green environment and excellent weather, this East African gem provides the perfect backdrop for an enriching educational journey. Combine your learning with the opportunity to explore world-renowned national parks and cultural heritage sites, making your time in Arusha both intellectually stimulating and personally fulfilling.

11. Registration Deadline

The registration deadline for this course is September 20, 2024.

12. Payment Methods:

Payments can be made through the College's control number provided upon registration.

13. Contact Persons

For more information about the course, please contact the following:

Program Coordinator:	Short Course Coordinator:
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