



BERHAMPUR UNIVERSITY



BHANJA BIHAR, BERHAMPUR

**AIU – Academic and Administrative Development
Centre (AADC), Berhampur University in
Collaboration with the Association of Indian
Universities (AIU) and Department of Economics, BU
*Organizes***

**One Week Faculty Development
Programme (FDP) on Research and
Advanced Data Analysis with R
Programming
(Virtual Mode)**

June 26 - July 01, 2023



About the Association of Indian Universities (AIU)

The Association of Indian Universities (AIU) is an apex inter-university representative body of universities and other higher education institutions in the country. Established in 1925 as the Inter-University Board (IUB) of India, it acquired its legal status as a registered society in 1967 under the Societies Registration Act 1860 and was rechristened as the Association of Indian Universities (AIU) in 1973. AIU is the second oldest university association in the world next to the Association of Commonwealth Universities which was established in 1913. It has the distinct feature universities, institutes of having the largest network of universities and other HEIs, with 906 members in India and 14 Associated members from foreign countries. The membership of AIU includes all types of universities e.g., conventional universities, open universities, deemed to be universities, state universities, central universities, private universities and institutes of national importance. In addition to Indian from Bangladesh, Bhutan, Republic of Kazakhstan, Malaysia, Mauritius, Nepal, Thailand, United Arab Emirates and United Kingdom are its Associate Members. Since its inception AIU has played a very significant role in the development of higher education in the Country.

Some of the eminent scholars and visionary leaders like Dr Sarvepalli Radhakrishnan, Dr Shyama Prasad Mukherjee, Dr Zakir Hussain, and Sir A L. Mudaliar have given leadership to AIU. During such a long journey, AIU has carved a niche for itself by serving the Ministry of Education, Govt of India as a research-based policy advisory body. Being an apex institution, it constitutes an integral part of all major decision-making committees and commissions in the country. As an academic 'think tank' organization, AIU supports the Government as a research-based policy advisory body with the wider mandate of taking up research projects on higher education policy and capacity building. It also acts as a bureau of information on higher education; liaises with international bodies and universities for the internationalization of Indian higher education among many others. The vision of AIU is to emerge as a dynamic service and apex advisory organization in India by undertaking such initiatives and programmes which could strengthen and popularize Indian higher education as a leading-edge system in the world and promote greater national and international collaboration in higher education, research, extension, sports, youth and cultural activities. It is bestowed with the mission of promoting and representing Indian universities and other higher education institutions through strong liaison with the government, national/international organizations, and sister associations the world over and establishing liaison between/among universities through active support, cooperation and coordination among the member universities and all its stakeholders for quality education, research and other academics and extension activities.

About Berhampur University

The Berhampur University (BU) is a public-funded state university established on 2nd January 1967. The campus is known as Bhanja Bihar, named after the celebrated poet of Odisha Kabisamrat Upendra Bhanja. Spreading over an area of about 250 acres, the university is 12 kilometres and 5 kilometres away from the Berhampur City and Sea-beach (Bay of Bengal) of Gopalpur, respectively. There are 25 post-graduate departments on the university campus, that offer specialized subjects and Ph.D./D.Sc. Programs. The University has 173 affiliated colleges with various subjects and disciplines such as Arts, Science, Commerce, Law, Education, Medicine, Pharmacology, Homoeopathy, Ayurveda, Nursing, Military Science, Library Science and Fine Arts. The University is a permanent member of the Inter University Board of India and Sri Lanka as well as that of the Association of Common Wealth University of London.

Mission

Berhampur University seeks to take long strides in harnessing the outcome of teaching and research in various fields by way of ensuring inclusive growth, and to prove itself to be a Center of Excellence in higher education.

It further envisions taking up the social responsibility towards the total uplift of the society at large by providing quality education in consonance with the motto of the University, i.e., "Tamaso Ma Jyotirgamaya" which means "lead me from darkness unto light".

Vision

- Promote inclusive growth to cater to the educational need of all sections of the society while striving for excellence.
- Achieve innovation in teaching, learning and research to realize goals of higher education.
- Empower students with relevant knowledge, competence and creativity to face the challenges of life.
- Create a modern teaching-learning ambience to impart quality education.
- Generate awareness of human rights, values systems, culture, heritage, scientific temper and environment.
- Preserve and promote the cultural heritage of the region through research and documentation.
- Inculcate ethical values and academic rigour amongst the students enabling them to contribute to the holistic development of society.

About Academic and Administrative Development Centre (AADC)

The Academic and Administrative Development Centre (AADC) is a pioneering initiative of the Association of Indian Universities and Berhampur University, Bhanja Bihar Berhampur directed towards training and capacity building of Faculty members and administrative functionaries of universities for dealing with hybrid/blended learning with a focus on the latest pedagogical reforms. The AADC at Berhampur University offers short-term training programmes and faculty development programmes aimed at continuous capacity building of the key stakeholders (both teaching and non-teaching) through virtual and physical modes.

About the Programme

R is an open-source statistical package based on the S language. It is a powerful software for statistical analysis with a state-of-art graphics facility. It provides you with the means to define and manipulate your data, but the way you go about the job is not predetermined like many of the menu-driven statistical softwares. A session with R differs from most of the other statistical softwares. You will find it to be an interactive approach where the results from one step lead to the next. This is the idea behind the present training Programme on R.

Topics to be Covered

- Introduction to research and data analysis using R
- Installing R and RStudio on Windows
- Introduction to basics of R, Data Frames in R and R Studio, R Scripts
- Contents and components of R packages including the Tidyverse package
- Working directories in RStudio
- Merging and Importing Data
- Data types, R Objects and Factors
- Exploratory Data Analysis using R
- Plotting Histograms and Pie Chart, Bar Charts and Scatter Plots etc.
- Data visualization with ggplot2 and dplyr Package
- Make use of R loop functions and debugging tools
- Data Simulation using R
- Collecting detailed information using the R profiler
- Inferential statistics (Hypothesis testing)
- Correlation and Regression analysis
- Analysis of Variance (ANOVA): One-way and two way
- Multivariate Analysis: Data reduction and data classification tools
- Logit and Probit Analysis
- Factor Analysis and Principal Component Analysis
- Understanding Volatility Models: AR, MA, ARIMA, ARCH & GARCH model
- Application of ARDL and NARDL

By the end of this course, the participant will:

- Experience the benefits of using the R programming language.
- Discover how to use RStudio to apply R to your analysis.
- Explore the fundamental concepts associated with programming in R.
- Explore the contents and components of R packages including the Tidyverse package.
- Gain an understanding of data frames and their use in R.
- Learn about R loop functions, debugging tools and data simulation using R
- Learn how to collect detailed information using the R profiler
- Discover the options for generating visualizations in R.
- Learn about various exploratory data analysis techniques using R
- Learn various advanced qualitative and quantitative data analysis tools using R

Details of the Faculty Development Programme (FDP)

Title of Training Programme:	One Week Faculty Development Programme (FDP) on Research and Advanced Data Analysis with R Programming
Duration of FDP:	26. 06.2023 to 01.07.2023 (One week)
Timing of Sessions	Two sessions per day: 10.30 am to 12.00 o clock and 3.30 pm to 5.00 pm
Eligibility:	Faculty members and researchers from various higher educational institutions in India
Mode of delivery:	Virtual mode
Venue of the Program:	New Syndicate Hall, Berhampur University
Last Date for Registration:	21st June 2023
Registration Fee:	Rs 500
Payment Details	Payment may be made in the form of DD/Cheque/online payment in favour of AIU Academic and Administrative Development Centre, BU", payable at State Bank of India, Bhanja Bihar, Berhampur (2107); A/c No. 41605496802; IFSC Code: SBIN0002107 (5th to 7th character "0" may be read as Zero https://docs.google.com/forms/d/1t3M0c-3WGbrMLDAQ9E9qG00y1OW20XWiDqB7oc17oO8/edit
Registration Link:	https://docs.google.com/forms/d/1t3M0c-3WGbrMLDAQ9E9qG00y1OW20XWiDqB7oc17oO8/edit

Certification: Certificates will be issued subject to the participants qualifying the following conditions:

- Minimum 75%attendance.
- Minimum 50% marks in the exam conducted on the last day of the program.

Organizing Committee

Chief Patron

Prof. Geetanjali Dash

Vice Chancellor, Berhampur University

Patrons

Prof. Sushant Kumar Baral

Chairman, PG Council, BU

Shri Sachidananda Nayak, OAS-(S)

Registrar, Berhampur University

AIU Convener

Dr. Amarendra Pani

Joint Director & Head, Research Division

Association of Indian Universities, New Delhi

AADC Nodal Officer

Dr Mrutyunjay Swain

Associate Professor, Department of Economics, BU

Programme Coordinators

Dr. M. Swain and Dr. B. C. Behera

Department of Economics, BU

Other Team Members:

Prof. Sudhakar Patra, Department of Economics, BU

Dr Bonomali Khuntia, Department of Computer Science, BU

Dr. Diptimayee Mishra, Department of Economics, BU

Dr Raj Kishor Kampa, Department of Library and Information Science, BU

Dr Saswat Sourav Mohapatra, Department of Biotechnology, BU

Mr. Pabitra K Singh, Department of Economics, BU

Mr Desul Sudarshan, Department of Library and Information Sciences, BU

Dr. Bibhunandini Das, Department of Economics, BU

Contact Details:

AIU – Academic and Administrative Development Centre (AADC)

HRDC Building

Berhampur University

Bhanja Bihar, Berhampur -760007, Ganjam, Odisha

Email: aiuaadc.bu@gmail.com

Phone: 9724266077, 6372079027

Website: <https://buodisha.edu.in>

