

# MAHATMA GANDHI UNIVERSITY, KOTTAYAM

March 2024

# **NEWSLETTER**



#### FROM THE EDITOR'S DESK

Dear Members of the University Community, We are excited to present the new edition of the School of Data Analytics Newsletter, highlighting the remarkable achievements and activities of our students, faculty, and staff.

Here's a berif overview of the events that transpired over the acedemic year that was 2023-2024.

# WORKSHOP ON R FOR DATA ANALYSIS

Volume 2: Issue 1

A Series of Workshops on R for Statistical Data Analysis was conducted in 25-26 November, 15-16 December 2023. The Resource person was Dr. Bindu Krishnan Senior Statistician and Data Scientist, IBM-SPSS Software Solutions Ltd, Kochi

# **Workshop on Data Analytics & Machine Learning for Medical Research**

A Preconference Workshop on Data Analytics and Machine Learning for Medical Research was held on 1-11-2023 as part of ISMSCON-2023. The Program was inaugurated by Dr. B. L Verma, Ranchi, the founder General Secretary of ISMS and former President of International Epidemiology Association. Pof. Abraham K. Samuel , Director, Dept. of Student Services, presided. The resource persons were Dr. Aleyamma Mathew, RCC Trivandrum; Dr.Sajimon Abraham, M.G.University, Kottayam and Dr. P. Venkatsan, NIRT-ICMR, Chennai. Our faculty members Dr.Ancy Joseph, Dr.Sharon Susan Jacob, Ms.Abseena Habeeb and Mr.Jiby Joseph coordinated the program More than 120 particpants from various universities, research institutes and colleges attended the program.



#### Workshop on Bayesian Computing and MCMC Methods

A Preconference Workshop on Bayesian Computing and Markov Chain Monte Carlo (MCMC) Techniques for Clinical Data Analysis was held on 1-11-2023 in collaboration with ISMS and Caritas Hospital and Institute for Medical Research, Thellakom, Kottayam. Prof. L. Jayaseelan, former Professor & Head, Dept. of Biostatistics, CMC Vellore inaugurated the proram. Rev.Fr. Dr. Bins Kunnath, Director, Caritas Hospital, presided. Dr. Johny Joseph, Senior Cardiologist narrate the importance of Statistical Data Analysis and Interpretation in Medical Research. Dr. Sebastian George, Professor and Head, Department of Statistics, Kannur University discussed on Bayesian Computing and Inference. Dr. B. Binukumar, Profeessor of Biostatistics, NIMHANS Bangalore discussed on MCMC Methods. Mr.Jeswin Baby, Ms.Ambily Natarajan, and Mr. K. Krishnakumar, Biostatisticians in the Caritas Research Institute gave hands on training in the Data Analytics Lab. The Workshop concluded at 5.00pm. More than 100 delegated participate.

National Conference on Emerging Developments in Medical Statistics and Biostatistics in the Era of Data Science & 41st Annual Conference of Indian Society for Medical Statistics 2023



The School of Mathematics & Statistics jointly with the School of Data Analytics hosted a National Conference on Emerging Developments in Medical Statistics and Biostatistics in the Era of Data Science as part of the 41th Annual Conference of the Indian Society for Medical Statistics (ISMS) during 2-4 November 2023 in conjunction with the Ruby Jubilee Celebrations of the Mahatma Gandhi University, Kottayam.

The Conference consisted of keynote address, symposia, plenary sessions, paper/ poster presentations on a variety of topics. The theme of the programme is "Emerging Developments in Medical Statistics and Biostatistics in the Era of Data Science". There will also be two preconference workshops for benefit of young scientists.

The highlights of the conference were Paying tributes to the memory of legendary Statistician Dr C. R. Rao(1920-2023), Professor S. K Bhattacharya Oration, Prof. P. P. Talwar Lecture, Prof. R. N. Srivastava Award Presentation, Presentation of Awards to Eminent Biostatisticians, Plenary Talks by Leading Biostatisticians and Doctors, Best Paper Awards to Best papers presented in each Contributed Session, Best Poster Presentation Awards

# National Prize for Nakul G. of SDA

Mr. Nakul G. was one of the top 10 prize winners in the National Level Essay Competition conducted by Ministry of Statistics and Programme Implementation, Govt. of India during February 2023. He was the only winner from Kerala. He received the prize on 28th June 2023 from the Minister, MOSPI during the National Statistics Day Celebration 20223 at New Delhi.

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#### **Merit Day Celebration**

A Merit Day and Pass Out Program was organized to congratulate the outgoing first batch of students. The Vice Chancellor Prof. Dr. C. T. Aravindakumar inaugurated the program. The former Vice Chancellor Prof. Dr. Sabu Thomas delivered the convocation address and distributed the certificates.



Prof. Abraham K. Samuel, DSS delivered the Keynote address. Dr. K. K. Jose, the Director of SMS and SDA presided. Dr. R.Sreekumar welcomed the guests and audience. Student representatives Ms. Devika Santhoshkumar, Ms. Amrutha B., Ms. Khadeeja R., Ms. Nihala R.I. and Mr. Ekisa Collins Etyanag spoke on their experience and thanked the teachers for their love and guidance. Merit Scholarships, Medals and Prizes and Cash Awards were given to the top ranking students. All outgoing students and their parents attended the function. The junior students hosted the program with cultural programs. It was a memorable event for all.



MSc Data Science and Analytics first batch

# International Students Project Program (ISPP2023) - Phuket Rajabhat University Thailand

**I**The following students of SMS and SDA got selection among 3 winners at International level.

- Hamna Mariyam K.B., II M.Sc. Data Science & Analytics, 2022-24
- Shamil E., II M.Sc. Mathematics, 2022-24

# International Project Work/Internship to students in School of Data Analytics

We encourage our students to pursue their Major Project Work in reputed Universities and Research Institutes abroad. Mr.Nakul G. Kumar of M. Sc. Data Science and Analytics (2021-23 batch) has completed his Project Work/Internship as a Special Research Student in the Department of Artificial Intelligence and Data Informatics of the Graduate School of Advanced Science and Engineering, Hiroshima University, Japan. He had carried out his research on the subject Direct Relationship Analysis with Numerical and Text Data under Prof. Dr. Daniela Andrade, Associate Professor, Data Analytics & Modeling Laboratory. He had successfully completed the Project Work 'Sentence Rationales for Document Classification' and has submitted one research paper for publication in a reputed international journal. He got a fully funded internship opportunity in the TSMC Company under National Science and Technology Council prior to employment.

Ms. Hamana Mariyam of the M. Sc. Data Science and Analytics (2022-24 batch) has joined the BCAM- Basque Centre for Applied Mathematics, Spain for her Project Work from 18th February 2024 to 17th July 2024.

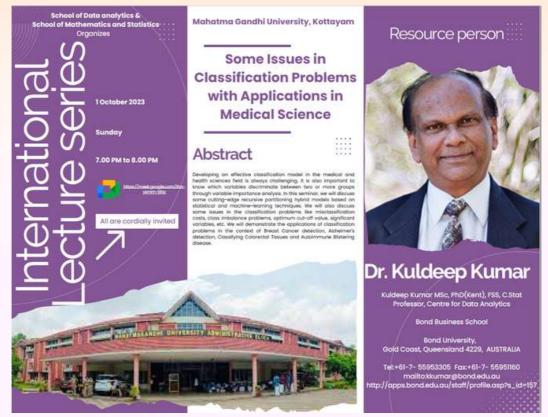
HIROSHIMA UNIVERSITY	1941	
School of Informatics and Data Scien 1-14-1- Kagamiyama, Higashi-Hirosh		Bibao, 21" December 2023
P. Waller, London on Barriero, Lindon and Lincola	November 30 <sup>th</sup> , 2023	Dear Hamna Mariyam,
To whom it may concern.		We are pleased to inform you that your request for 'Modelling and analysis of vector-
		borne disease epidemiological models" internship position has been approved, within the
Certificate of Internsh	ip Completion at Hiroshima University	framework of BCAM Internship Programme.
		We would like you to collaborate with our center under the following conditions:
This is to certify that Mr. Nakul Gopakumar completed the internship		1. We are offering you an internship position, from 18 <sup>th</sup> February 2024 to 18 <sup>th</sup> July
"SENTENCE RATIONALES FOR DOCUMENT CLASSIFICATION" at		2024.
Hiroshima University under the supervision of Daniel Andrade, Associate		2. You will collaborate with BCAM under an Internship Agreement to be signed
Professor, Center for AI and Data Innovation, Hiroshima University, Japan.		of the starting date. 3. You will have access to the infrastructure of the center required for your
During his 4-month internship (August 1" to November 30", 2023), Mr. Nakul		research activities.
Gopskumar successfully acquired the skill of analysing large text collections with		4. Your research activities will be conducted under the supervision of
		researchers Maira Aguiar and Vanessa Steindorf, within Mathematical and
Python and knowledge in deep learning with PyTorch and pre-trained language		Theoretical Biology research line - Mathematical Modelling with
models.		Multidisciplinary Applications Research Area. 5. The internship will be reimbursed with 1.000€ in order to cover travel
		expenses, and accommodation will be covered by BCAM.
6.		We can keep this offer until 29th December 2023.
	Daniel Andready	We would welcome your feedback before that date in order to provide an answer to your
30-11-2023	Daniel Andrade,	potential questions and agree on the conditions of your future with us.
Hiroshima	Associate Professor Data Analytics & Modeling Laboratory Hiroshima University	Looking forward to your reply,
	2017/2010/constructions and a file	Alders (bcam)

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#### **International Lecture Series**

An online International Lecture series was organized by the school. The first talk in the series was on 28th May 2023 by Dr. Lekshmi M. Nair, Senior Data Scientist, Automobile Association United Service (USAA) Texas and former Vice Pesident and Head, Economic Forecasting Division, Citi Bank Texas, USA. She talked on Machine Learning Applications in Retail Banking: A case study on Churn prediction. She illustrated the works using actual data sets and various steps in the process.

The second talk was held online on 1 October 2023 by Prof. Dr. Kuldeep Kumar, Director, Centre for Data Analytics, Bond Business School, Bond University, Queensland, Australia. He delivered a talk on 'Some Classification Problems with Applications in Medical Sciences'.



#### **Onam Celebration 2023**

Under the auspices of the Students Association of the School of Mathematics and Statistics & School of Data Analytics Onam Celebrations was held.



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# Workshop on Data Science and Data Analytics held on 17 March 2023

The experts were Prof. Dr. Shalabh Shalabh, Sanjay Mittal Chair Professor and Dean Academic Affairs, IIT Kanpur. He discussed on Cluster Analysis Techniques for Machine Learning. The second resource person was Dr. Bindhu Krishna, Senior Data Scientist, IBM India- SPSS Software Labs Kochi. She discussed on various statistical techniques used in Data Science and Data Analytics and illustrated them through real data sets. There were interactive sessions also which helped the students to get clarifications on different aspects.

# **Industry Visits and Interaction**

As part o Science Day celebrations, the faculty members and students made an industry visit and interaction with IMEC Labs Kochi, ISDC India, Kochi; IMEC Technologies Infopark and Data Analytics, Infopark, Kochi on 23 February 2024. Students were given hands on training programs and illustrations using Big Data. There were brainstorming sessions and interactive sessions with industry experts. We are planning to have more collaborations with industries to train our students to meet the challenges in the job market.





# Dr. C. R. Rao Obituary and Exploring Research Opportunities in the Global Horizon

On 7th September 2023 we paid tributes to Prof. C.R.Rao who left us for heavenly abode on 22 August 2023. Dr.K.K.Jose talked about Prof. Dr. C. R. Rao, the legendary Statistician and his contributions. The students made presentation on his important contributions and their applications.

It was followed by an International colloquium by three eminent speakers. The first speaker was Dr. Jisha C.R., Post-doctoral Fellow, Department of Mathematics, Ulsan National Institute of Science and Technology, South Korea. The second speaker was Mr. Jahid Hassan, Doctoral Fellow, Dept. of Computer Science and Information Technology, Purdue University, USA.He talked on his success story in getting research grant in USA.

The third speaker was Mr. Nakul G. Kumar, Special Research Fellow, Dept. of Artificial Intelligence and Data Informatics, Hiroshima University, Japan. He narrated his experience in getting grants for internship and project work in various institutes at global level.

Dr. Sayooj Aby Jose, IMU Breakout Fellow at Alagappa University, India spoke on various research opportunities and grants. It was very informative and motivating for students.

There were interactive sessions with these young researchers and it has inspired our students.

# **Forthcoming Programs**

Dr. Amrita George, School of Management, Georgia State University, Atlanta, USA is expected to be in the School of Data Analytics during 2024-25 as a Fulbright Fellow under the Indo-US Exchange Programe She will undertake teaching and research works in collaboration with our faculty members and research scholars. The following are some of the Courses agreed.

Course 1: Unstructured Data Management

Course 2: Introduction to Cyber Psychology

The following research studies will also be carried out in collaboration with our faculty and research scholars.

Study 1: "Examining the implications of recent AI traffic monitoring on privacy and cybersecurity risks"

Study 2: "Impact of Environmental Enrichment using Sports Analytics on Game Outcomes" Study 3: "Examining the Impact of the Digital Divide on Social and Educational Outcomes in an AI Era"

Study 4: "CSR Outcomes, Greenwashing, and Digitization: Impact Analysis through Digital Document Summarization & CSR Reports"

#### **Published by:**

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