

# **DATA SCIENCE AND PERSONALISED MEDICINE:**

Making data-driven Personalised decisions

**DURATION** 

**ACCREDITATION** 

**THREE MONTHS** 

**CERTIFICATE COURSE** 

Online

2 SBV Credits

Start Date

: June 17<sup>th</sup> 2022

Register before : June 15<sup>th</sup> 2022

Timing

: Every Friday 1900hrs to 2000hrs

### **ABOUT**

# MAHATMA GANDHI MEDICAL ADVANCED RESEARCH INSTITUTE

Mahatma Gandhi Medical Advanced Research Institute established in January 2020, is an autonomous research-based institution with research autonomy and curricular activities in accordance with UGC guidelines and practices of Sri Balaji Vidyapeeth (Deemed to be University), Puducherry.

Gauged by a range of programs, MGMARI is geared towards producing human and knowledge capital that uses acquired knowledge in addressing quality of life, healthcare, workplace challenges, sustainable development and global economic competence.

Master at our pragmatic teaching and research innovation and persuation by our external Scientific Working Group has enabled us to develop strong associations with industry, government bodies and charities. Our Scientific Working Group brings together representatives from leading biotechnology industries, external organisations, key employers, regulators and professional bodies to help inform our curriculum, employability and research outputs.

## **KNOWLEDGE PARTNER**

# **OPTIMAL ONCOLOGY**

Optimal Oncology Private Limited, is a cancer Medtech company up with a mission to set up Al & Omics enabled Asset-Light Comprehensive Cancer Treatment Centers in rural areas.

We are developing a clinical decision support system called "Naiomi" (Novel AI & omics) for oncologists to facilitate precision cancer diagnosis and evidence-based treatments, ensuring improved treatment outcomes at an affordable cost for patients.



## **ABOUT**

# THE PROGRAM

Empowering healthcare professionals to gain knowledge of emerging technologies such as big data, machine learning, deep learning, and data sciences to make effective decisions with the goal of improving patient care.

## **WHO IS THIS**

# **PROGRAM FOR**

- Doctors, Dentists, Bio Medical Industry and Healthcare Professionals (Pharmacy, Nursing).
- Medical and Biology Students
- IT and Biomedical informatics



# PROGRAM BENEFITS

- ★ Understand Data Science techniques and their applications to real-world scenarios
- ★ Understand the data type to choose while taking decisions

- Understand Regulatory Compliance
- ★ Data driven decisions for healthcare professionals

## **PROGRAM**

# **STRUCTURE**

4 Weeks	Big Data and Data analytics in Medicine
T WCCK5	Big Bata and Bata analytics in Fledicine

4 Weeks	Machine learning and Deep Learning,
	Regulatory Compliance

4 Weeks	Real world Applications in Genomics, Image Analysis,
	Speech Recognition, Predictive Analytics

4 Hours Hands on Workshop

# COURSE CURRICULUM (ONLINE)

Every week Fri 7-8pm	Course Curriculum	Speakers		
17-Jun	Software design principles - Full stack, Al and Big Data	Dr. Ashwin, CMO Optra Health Inc		
24-Jun	Data Analytics & Evidence based medicine and How AI is changing medicine			
1-Jul	Medical data ontologies (ICD, SNOMED etc.) Healthcare systems interoperability standards: intro to HL7, JSON, XML (as per NRCeS, India)	Sujini, CSO - Product Development, Optimal Oncology		
8-Jul	Al Frameworks for healthcare	Prashanth Ravindran, Associate Director, Mobius Knowledge Services		
	Quiz / Activity Sheet			
15-Jul	AI > Machine Learning			
22-Jul	Supervised vs. Unsupervised	Nitin Sharma, Director Product Engineering,Optra Health Inc		
29-Jul	Deep learning & why is it different			
5-Aug	Regulatory Compliance for Digital health applications	Dr S.R.Rao, Vice President Sri Balaji Vidyapeeth		
	Quiz / Activity Sheet			
12-Aug	Real world application - Image classification & analysis	Avnish Parekh, CEO Neos Tech		
19-Aug	Real world application - Speech recognition & Natural Language processing	Jesu Valiant, CEO Stratforge		
26-Aug	Real world application - Supervised & Unsupervised learning in Predictive analytics	Dr. Balanehru, Director Sri Balaji Vidyapeeth		
2-Sep	Applications - Al in Genomics and drug discovery.	Dr. Ashwin, CMO Optra Health Inc		
Quiz / Activity Sheet				
Workshop (4 hours) -online				
10-Sep	Applying AI in clinical project	Sujini & Prashanth Ravindran		

# READY TO MAKE AN IMPACT!

**APPLY NOW** 

https://sbvu.ml/dspm

Patron

## SHRIM K RAJAGOPALAN

Chairman

### Dr S R Rao

Vice President (Research, Innovation and Development)

**Course Coordinators** 

### **SUJINI**

CSO - Product Development Optimal Oncology

### Dr Veni S

MGMARI Scientist.

Registration Details

SBVU students and Faculty

Others

: Rs. 5,000/-

: Rs. 10,000/-

For more details contact

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