Organizing Committee		
Chief Patron	: <b>Prof. V. Murugesan</b> Vice-Chancellor Annamalai University	
Patron	: Dr. N. Krishnamohan Registrar (i/c) Annamalai University	
Co Patron	: Dr. K. Raghukandan Dean, FEAT Annamalai University	
Chairman	: Dr. V. Nehrukumar Prof.& Head Department of Civil Engineering Annamalai University	
UGC- SAP Co	-ordinators: Dr. V. Arutchelvan	
	Dr. S. Poongothai	
	Professors Department of Civil Engineering FEAT, Annamalai University	
Work shop Co	o-ordinators: Dr. B. Asha	
	Dr. R. Mathiyazhagan	
	Dr. V. Damodharan	
	Associate Professors Department of Civil Engineering FEAT, Annamalai University	

REGISTRATION FORM UGC-SAP DRS II Sponsored National Workshop on Modelling Techniques for Optimizing the Bio-reactors (MTOBr 2020)			
<u>March 16<sup>th</sup> &amp; 17<sup>th</sup>, 2020</u>			
Name:			
Designation:			
Department:			
Mailing Address:			
Mobile: E Mail:			
Category: Academic / Industry / Research Scholar			
Accommodation: Required / Not Required			
Type of accommodation : Guest House / Hotel (On payment)			
Details of Registration Fee:			
Name of Bank :			
Branch :			
DD Number with Date :			
Signature of Applicant			



Organized by

**Department of Civil Engineering** 

(B.E Civil Engg- NBA Accredited) (UGC SAP assisted DRS Department) Faculty of Engineering & Technology Annamalai University Annamalai Nagar – 608 002

Tamil Nadu, India.

#### About The University

In the early 1920s Rajah Sir S. R. M. Annamalai Chettiar founded Sri Minakshi college, Sri Minakshi Tamil College and Sri Minakshi Sanskrit College at Chidambaram. In 1928, Rajah Sir S. R. M. Annamalai Chettiar agreed with the local Government to handover the above said institution for establishing a University. Thus, on 01.01.1929 Annamalai University was established as per Annamalai University Act 1928 (Tamil Nadu Act 1 of 1929). One of the most significant developments is the enactment of the Annamalai University Act, 2013 (Tamil Nadu Act 20 of 2013), which has come into force from September 25, 2013. Annamalai University is accredited with 'A' Grade by NAAC in 2014. "The NIRF-2019" by the Ministry of Human Resource Development (MHRD) has ranked the University in the band 101 - 150 in the overall category as well as the University Category. In the Pharmacy Category the ranking is 12th in India. In the Medical Category the ranking is 25th . "The Times Higher Education World University Ranking - 2020" has ranked Annamalai University in 1000+ for Overall category. In the Subject category Ranking, 2019, the University is ranked in the band of 501-600 for Life Sciences, 601+ in Preclinical, clinical & Health Subjects. 801+ in the Physical Sciences subject and Engineering. "The QS World University Ranking - 2020" has ranked Annamalai University in the band of 291 - 300 in Asia Ranking, and 39 in India Ranking. "The CWTS Leiden Ranking 2019", on scientific impact of universities and on universities' involvement in scientific collaboration & scientific performance, has ranked the University at 23rd based on the number of publications and 7th based on the proportion of publications that compared with other publications in the same field and in the same year, belong to the top 10% most frequently cited. Among the top 212 ranked institutions for Higher Education in India the "SCImago Institutional Ranking (2019)" has ranked Annamalai University as 9th in Tamil Nadu and 29th in India. Annamalai University is one of the largest unitary, teaching, and residential Universities in Southern Asia comprising of 10 Faculties and 49 departments of study. This University has played a pivotal role in providing access to higher education to thousands of youth cutting across the social spectrum, especially from economically and socially disadvantaged classes. In this respect, this University's service to the nation is tremendous.

### **Department of Civil Engineering**

The Department of Civil Engineering was established initially as part of the Faculty of Engineering and Technology in the year 1945 and later formed as Department of Civil Engineering in the year 1978. The Department attained UGC-SAP DRS Level-I status for the period 2009 to 2014 with a total financial assistance of 26lakhs for strengthening of infrastructure and for promoting research. Further the Department has been duly recommended by the Expert Committee for DRS Level-II for the period 2015-2020 with a financial assistance to the tune of Rs. 100 lakhs. The Department has a number of ongoing research projects from various funding agencies in the thrust areas of Environmental Engineering and Water Resources Engineering and Management. About 56 doctoral degrees have been awarded in the Department. The Centre for Environment, Health and Safety (CEHS), an integral part of Department of Civil Engineering, is accredited as EIA consultant by QCI under NABET scheme for MoEF for several industrial sectors. The Centre has completed Industrial Consultancy works about Rs. 80 lakhs and also pursuing work for about 315 lakhs. The Department contributes to the interdisciplinary academic and research activity of the Institute.

#### About the Work shop

Two- Day Workshop on "**Modelling Techniques for optimizing the Bio reactors**" which will be hosted by the Department of Civil Engineering, Faculty of Engineering and Technology, Annamalai University, targets the Faculties, Research Scholars and PG Students with the passion to develop on awareness of mathematical modelling for bio-reactors in liquid as well as solid waste management.

### Significance

The purpose of this workshop is to provide hands on experience necessary for the quantitative analysis of biological systems and other biological process phenomena. The Engineer and the biologist are freed from the difficulties of mathematical solution and can tackle complex problems that were impossible before. Mass balances, when combined with kinetic rate equations, to form simple mathematical models, can be used with very great effect as a means of planning, conducting and analyzing experiments. Models are especially important as a means of obtaining a better understanding of process phenomena and biological systems. The simulation examples serve to enforce the learning process in a very effective manner and also provide hands-on confidence in the use of a simulation language. The participants can program their own examples, by formulating new mass balance equations or by modifying an existing example to a new set of circumstances. This workshop is to facilitate improved modelling of bioreactors by coupling a biokinetic growth with a multidimensional computational fluid dynamic hydrodynamic model between biokinetics and the hydrodynamics.

### **Objectives**

The workshop is proposed with the following objectives.

- To provide an opportunity to the participants for developing the simulation and modelling skills for biological systems for carrying out various research and Industrial projects.
- > To provide Hands on Training to the participants

## **Registration fees**

Students/Researchers	: Rs. 400
Academicians	: Rs. 600
Industrialists	: Rs. 750

The registration fee should be sent through Demand Draft drawn in favour of "The Registrar, Annamalai University" payable at Annamalainagar - 608002. For details, visit our University web portal www.annamalaiuniversity.ac.in.

### Accommodation

Accommodation will be arranged on request in the University Guest House with payment.

# Contact Address

The Workshop Co-ordinator MTOBr -2020 Department of Civil Engineering Annamalai University Annamalai Nagar – 608002 Tamilnadu, India Phone: 04144 – 239731 Mobile: +91 9443354126 Email: aumtob2020@gmail.com.