



# ADVANCED SIMULATION TRAINING IN CRITICAL CARE (ASTriCC)

St.John's Medical College hospital invites you to a 2 day workshop aimed at enhancing the training of Critical Care students using the Advanced ICU Simulator. Interactive Sessions covering core topics in Respiratory physiology and Hemodynamic monitoring, ultrasound, heart-lung interactions and complex ICU scenarios will give hands on experience using the simulator.

Simulation labs are going to be the need of the hour in Critical Care training curriculum, to create a near realistic patient environment to improve and hone trainees' skill and knowledge. The Advanced ICU Simulator was designed by the Indian Institute of Science, Bangalore in collaboration with the Department of Critical Care Medicine, St John's Medical College and Hospital.

## St.John's Medical College and Hospital, Bangalore

5th April 2018 - Thursday  
6th April 2018 - Friday

Venue : Skill Lab, St. John's Medical College  
Time: 8:00AM to 5:30PM



Indian Institute of Science

meduplay  
medical simulation



St.John's Research Institute

# AGENDA

## Advanced Simulation Training in Critical Care (ASTRiCC)

DAY  
01

08.00 am – 08.30 am	Registration	
08.30 am – 09.30 am	How does the Ventilator work?	Equations of motion   Series and parallel connection Control variables - recognizing the mode   Classification of Ventilators
09.30 am – 10.00 am	Phase Variables	Concepts underlying each phase variable Recognition and understanding of scalars
10.00 am – 10.30 am	Time Constants	Fundamentals of time constant   Derivations   Simple Equations and practical applications   Time constants in Hemodynamics
10.30 am - 10.45 am	Tea/Coffee	
10.45 am – 11.15 pm	Graphics in Volume control	Equations governing V,F,P in inspiration and expiration What determines changes in scalars   How to construct your own scalars
11.15 pm – 11.45pm	Graphics in Pressure control	Equations governing V,F,P in inspiration and expiration What determines changes in scalars   How to construct your own scalars
11.45 pm – 1.15 pm	Stations - Basic Mechanical Ventilation	Basics which have been explained will be demonstrated  Delegates will identify scenarios to explain all principles and simulate any scenario
1.15pm – 2.00 pm	Lunch	
02.00 pm - 02.30 pm	Simulation of Asthma/COPD ventilation	Details of all concepts underlying settings   Recognition of respiratory and cardiovascular complications of therapy
02.30 pm - 03.00 pm	Simulation of ARDS Ventilation	Details of basic concepts, troubleshooting and cardiovascular complications
03.00 pm - 03.30 pm	Simulation of Autopeep and DHI	In-depth understanding of physiology and mechanisms underlying development of autopeep in various conditions
3.30 pm - 05.30 pm	Stations- Advanced Mechanical Ventilation	3 stations - Asthma/ COPD, ARDS and Autopeep/DHI

DAY  
02

08.30 am – 09.00 am	Arterial Waveform	The physiological determinants of each part of the arterial waveform in health and disease. LV arterial coupling and impedance
09.00 am – 09.30 am	Heart lung interactions - PPV/SPV	Physiological details of heart-lung interaction
09.30 am – 10.00 am	Integration of simulation, ultrasound and echocardiography	An unified approach at the bedside using scalars, USG, ECHO and arterial line waveforms
10.00 am – 10.30 am	Angle of attack, X Y Z planes, principles in US guided Vascular Cannulation	Step by step approach using longitudinal and transverse realtime ultrasonic cannulation
10.30 am - 10.45 am	Tea/Coffee	
10.45 am – 01.00 pm	Stations - Hemodynamics	4 stations   1. PPV/SPV   2. Septic Shock 3. Cardiogenic Shock   4. Phantom - USG guided lines
01.00 pm – 1.45pm	Lunch	
01.45 pm - 03.00 pm	Complex Cardiopulmonary Simulation station	The delegates are asked to manage a complex scenario on the simulator where all principles of past two days have to be applied
03.00 pm – 05.30pm	Construction and testing of a complex scenario for Simulation	Students will design and challenge each other as teams

Amount | Rs.5000/-

Name of Beneficiary : ST JOHN'S MEDICAL COLLEGE HOSPITAL

Name of Bank : Bank of Baroda

Name of Branch : Johnnagar Branch Bangalore

IFSC Code : BARB0STJOHN (0 (Fifth Character '0' denotes 'zero')

A/C Type & No: SB Account, A/C no. 05210100000018

Registrations limited to 40. Last date for registrations is 22nd March 2018

Accommodation available in Annexe III.

Tariffs per night - Non AC Single Room - Rs.780 | AC Single Room - Rs.1845

Non AC Double Room - Rs.1190 | AC Double Room - Rs.2465

For registration queries contact : Mrs Veena Kumari

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