

**WORKSHOP ON “PHYSIOLOGICAL AND MOLECULAR MECHANISMS OF
ABIOTIC STRESSES IN PLANTS”**

31st October – 04 November, 2022

DAY 1- October 31, 2022 (Monday)

Registration & Breakfast		08.30 AM
Inaugural Function		09.30 AM
Technical Session 1		
Dr. Szilvia Z. Tóth	Studying the impact of abiotic stress on primary photochemical activities using fluorescence kinetics.	10.00 AM
<i>High Tea</i>		
Dr. Szilvia Z. Tóth	Studying the impact of abiotic stress on primary photochemical activities using polarographic methods.	11.30 AM
<i>Lunch break 1.00 – 2.00 PM</i>		
Technical Session 2		
Dr. Maddi Vanaja	Approaches for imposing abiotic stresses	02.00 PM
<i>High Tea</i>		

DAY 2 - November 1, 2022 (Tuesday)

<i>Breakfast</i>		08.30 AM
Technical Session 3		
Dr. Szilvia Z. Tóth	ROS and antioxidants as markers for abiotic stress tolerance.	09.30 AM
<i>High Tea</i>		
Technical Session 4		
Dr. Maddi Vanaja	Studying the impact of abiotic stress on carbon dioxide fixation using Infrared gas analyzer.	11.30 AM
<i>Lunch break 1.00 – 2.00 PM</i>		
Dr. Maddi Vanaja	Studying the impact of abiotic stress on carbon dioxide fixation using biochemical approach.	02.00 PM
<i>High Tea</i>		
Technical Session 5		
Dr. Dinakar Challabathula	Analyzing alternative oxidase gene expression under abiotic stress : Total RNA isolation	03.30 PM

DAY 3 - November 2, 2022 (Wednesday)

<i>Breakfast</i>		08.30 AM
Technical Session 6		
Dr. Dinakar Challabathula	Quantification of RNA and agarose gel electrophoresis of RNA	09.30 AM
<i>High Tea</i>		

Technical Session 7		
Dr. Dinakar Challabathula	Synthesis of cDNA and gene expression analysis	11.30 AM
<i>Lunch break 1.00 – 2.00 PM</i>		
Technical Session 8		
Dr. Umesh Bageshwar	Expression, Purification and Detection of New Generation Fluorescent Proteins: Isolation plasmids, restriction digestion, and cloning.	02.00 PM
<i>High Tea</i>		

DAY 4 - November 3, 2022 (Thursday)

<i>Breakfast</i>		08.30 AM
Technical Session 9		
Dr. Umesh Bageshwar	Preparation of <i>E. coli</i> BL21 DE3 Competent Cells	09.30 AM
<i>Lunch break 1.00 – 2.00 PM</i>		
Technical Session 10		
Dr. Umesh Bageshwar	Transformation of BL21 DE3 Strain with Plasmids pneonGreen_Dimer and PMScarlet_Dimer coding for Fluorescent Proteins NeonGreen and mScarlet, respectively.	02.00 PM
<i>High Tea</i>		

DAY 5 - November 4, 2022 (Friday)

<i>Breakfast</i>		08.30 AM
Technical Session 9		
Dr. Umesh Bageshwar	Cultivation of <i>E. coli</i> BL21 DE3 containing Plasmid pneonGreen_Dimer or pmScarlet_Dimer coding for NeonGreen_Dimer or Scarlet_Dimer under the control of T7 Promoter for Expression Studies.	09.30 AM
<i>High Tea</i>		
Dr. Umesh Bageshwar	Purification of neonGreen_Dimer and mScarlet_Dimer by Ni-NTA-based Affinity Chromatography.	11.30 AM
<i>Lunch break 1.00 – 2.00 PM</i>		
Session 10		
Dr. Umesh Bageshwar	Sodium Dodecyl Sulphate-Polyacrylamide Gel Electrophoresis (SDS-PAGE) and Electro-blotting of Purified Fluorescent Proteins	02.00 PM
Certificate distribution		
<i>High Tea</i>		