

# WATER AND FOOD SECURITY SEMINAR SERIES

*Presented by Chandra A. Madramootoo  
Visiting Professor, CEE and Visiting Scholar, JWAFS Lab*

The purpose of this seminar series is to provide senior undergraduate and graduate students in CEE, as well as other MIT graduate students, with a background on some of the challenges of global food security, particularly in relation to issues around water management engineering, and agro-ecologic conditions.

A listing of the seminar topics and the key points to be discussed in each seminar is given below. The seminar series will culminate with a Student Symposium on Monday, November 21, 2016.

**Thursday September 8**

## **WATER MANAGEMENT FOR FOOD SECURITY: OBJECTIVES OF WATER MANAGEMENT IN AGRICULTURE**

*12 - 1 pm Room 1-131*

Topics to be covered include: Global food security status, agro-climatic variations, food production systems, land productivity, managing water surplus and deficits, water management engineering in agriculture.

**Monday September 12**

## **IMPROVING WATER PRODUCTIVITY IN IRRIGATED AGRICULTURE**

*12 - 1 pm Room 1-131*

Topics to be covered include: soil water management, crop water productivity, productivity of irrigated basins, irrigation systems and networks, challenges to on-farm water management, water conservation technologies, precision irrigation.

**Tuesday September 13**

## **DRAINAGE WATER MANAGEMENT**

*12 - 1 pm Room 1-131*

Topics to be covered include: Drainage and flood control, subsurface drainage, water table management and sub-irrigation, drainage water quality, salinity, drainage water reuse.

**Wednesday October 5**

## **WATER AND FOOD PRODUCTION CHALLENGES IN THE SEMI-ARID TROPICS**

*12 - 1 pm Room 1-131*

Topics to be covered include: environmental and socio-economic conditions of the SAT, limitations to water and food production, impacts of climate change, managing soil and water in the SAT, dryland cropping systems.

**Friday October 7**

## **STRENGTHENING VALUE CHAINS IN IRRIGATED AGRICULTURE**

*12 - 1 pm Room 1-131*

Topics to be covered include: inclusive market oriented development, cold chains, digital agriculture, seed technology, financial inclusiveness.

**Monday November 21**

## **CEE-JWAFS WATER AND FOOD SECURITY STUDENT SYMPOSIUM**

*Curated by Chandra Madramootoo with participation of graduate students in CEE, Sloan, Tata Program, CSAIL, MITII and others.*

*3 - 4:30 pm Room 2-139*

Five graduate students from across various programs at MIT will present the results of their research in water and food security, and the audience will have an opportunity to ask questions and provide inputs to enhancing the water and food security research agenda at MIT.