FAO56 – “Crop Evapotranspiration. Guidelines to Compute Crop Water Requirements,” published in 1998 and quoted in nearly 35,000 studies, proposed to the irrigation and academic world a comprehensive methodology for computing crop water and irrigation requirements. The objectives of FAO56 were: to ease and add clarity to the calculation of crop water requirements, to expand information for users aiming to optimize water use and management and to improve crop yields, to produce water consumption information usable in collective irrigation systems, and to support measures to control impacts of irrigation on environment and responses to climate change. Science and technology have evolved during the 20 years since FAO56 was published and a number of novelties have furthered the progress on evolving irrigation practices and management. Updating and advancing the domain of crop water requirements responds to the need to incorporate results and practices of innovative science and technology into the FAO56 method, including data handling and data upgrades, more effective use of available research, and use of newer technology tools, including remote sensing or the Internet of Things (IoT). Updates and advances can bring more accuracy into the calculation of crop water requirements, providing better support to precision agriculture, and improving our responses to climate change. The updates and advances to FAO56 methodology and application that have been presented and discussed in the 2020-2021 Special Issue (SI) of Agricultural Water Management (https://www.sciencedirect.com/journal/agricultural-water-management/special-issue/10ZP66J8B2P) are quite relevant to modernizing management in irrigated agriculture, to the variety of facets involved in environmental upgrades and water demands and supply under climate change, and to increasing water savings in agriculture. These updates and enhancements are expected to improve and expand the application of FAO56 methodologies by a range of users and, in general, by researchers in the domains of land and water management.

Updates and advances presented in the SI and other associated articles that will be discussed in the Webinar refer to: (a) the recommended computation of ETo when weather data are impacted by site aridity and when only reduced weather data sets are available; (b) the expanded availability of standardized crop coefficients (Kc) and basal Kc of vegetables, field crops and trees and vine crops, including additional crops and new approaches for Kc of vines and trees; (c) the estimation of Kc from the fraction of ground cover and height as extended to vegetable, field, and vine and tree crops; (d) expanded use of remote sensing in water and energy balance approaches and for assessing vegetation amount to determine crop ET and Kc; and (e) using water balance models and other management tools.
President ICID - Prof. Dr. Ragab Ragab also serving as a Fellow Principal Hydrologist and Water Resources Management Specialist at UK Centre for Hydrology, Wallingford, UK; Editor, Journal of Agricultural Science, he contributes to Cambridge University Press (2013-present). He is also serving as an Adjunct Professor at Soil and Water Sciences Dept., the University of Alexandria, Egypt since 2006.

Welcome by Secretary General Er. Ashwin B. Pandya.
Er. Pandya has over 40 years of professional experience in water resources and irrigation planning, design, implementation, and financing.