

## **Arizona State University Executive Certificate in the "Ethical Circular Economy" offered in partnership with the US Chamber of Commerce Foundation**

The term circular economy is gaining traction in the private sector across Europe and the United States as a new approach to transitioning product and service development, urban infrastructure and economic development around maximum resource efficiency and effectiveness by closing loops in both design and disposal of products and materials. The ethical circular economy emphasizes systems thinking, social values, impact, and equity in addition to the traditional approach to circular economy.

This certificate course, offered through Arizona State University, the largest and most innovative university in the United States and a global leader in sustainability education, consists of two sections: an approximately two-week, self-paced online introduction to ethical circular economy followed by a one-day face-to-face interactive workshop. The course is appropriate for those with limited knowledge of circular economy.

### **During the Course, Students Will:**

1. Learn what circular economy is, how it works and the schools of thought that formed its foundation such as industrial ecology, cradle-to-cradle, net positive, biomimicry and life cycle analysis.
2. Work in groups to redesign a marketable product or service based on circular economy principles and models.
3. Apply newly acquired knowledge to define applicability to their local environment using themes such as the built environment, food waste, recyclables, transportation, water and energy.
4. Complete a broad, high-level net positive impact assessment using the sustainable development goals as the comparative ethical framework.

### **The Certificate Faculty is Global Sustainability Thought and Practice Leader:**

**Dr. Raj Buch**, PhD, Practice Lead with the Global Sustainability Solutions Services at Arizona State University, drives circular economy efforts at ASU on international projects that create social and environmental impact for developing economies in Africa and Asia, such as piloting sustainable food systems, irrigation systems development and "circular cities." Raj is also involved in launching a supply chain logistics "solutions lab" at ASU in partnership with the W.P Carey Supply Chain Management, with the goal of developing logistics solutions for developing economies around the world.

### **General Description:**

Prior to the in-person workshop, participants will have access to an online learning packet that will provide an introduction to ethical circular economy. Readings and videos will focus on defining circular economy, understanding the current state of circular economy and the associated industry terminology. Topics will include the history of circular economy, open vs. closed loop systems, and net positive impact. The online learning packet is designed to fully prepare workshop participants with the knowledge necessary to excel in the face-to-face workshop.

During the one full-day face-to face-workshop, participants will work in groups to design closed-loop solutions to "linear" system challenges. Questions about the course should be directed to Dr. Raj Buch: [rbuch@asu.edu](mailto:rbuch@asu.edu)

### **Certificate Format**

#### **The Course Consists Of:**

- Online Learning Packet (prep work approximately 4-6 hours over two-weeks)
  - Videos
  - Readings
- One full-day face-to-face session prior to 2017 Circular Economy Summit (6 hour session)
  - Content review, discussion
  - Project work with course instructors
  - End-of-course assessment
  - Participants will receive a certificate upon completion of the course