Construction Automation Needs and Challenges in Emerging Countries

Koshy Varghese

Department of Civil Engineering, Indian Institute of Technology, Madras, India E-mail: koshy@iitm.ac.in

Abstract -

The need for automation has conventionally been driven by the shortage and rising costs of skilled workers. There has been a perception that in emerging countries such as India, the priority for automation is low due to the availability of skilled workers. However, the massive scale of infrastructure development planned in these nations for the next few years cannot be achieved without appropriate automation in all phases of a construction project. There are several cases where companies invest in automation technologies but don't get the benefit due to inappropriateness of the technology to local conditions. There are also cases where the automation strategy and implementation is carefully planned and results in immense benefits. This talk will present the needs, opportunities and challenges of construction automation in emerging nations requiring. Cases of implementing both process automation as well as field automation technologies will be presented and the lessons learned from these discussed.