

NEXT LEVEL INNOVATION IN ROBOTICS AND AUTONOMY

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Title: Building a Conscious Machine: Challenges and Future Perspectives

It is assumed that all living beings are conscious machines. Can we build such a conscious machine that will be as natural as living beings? AI applications like Alexa and Siri have made us believe that conscious machines are being built. However, majority of research and development in this field is in fact 'weak AI', which is different from what is known as 'strong AI' - which has strong ties with consciousness. Dr. Behera will demonstrate the latest advances in the field as part of work done in his lab, in learning based visual control of robotic systems, motor skill learning and brain wave controlled robots to bring to life basic building blocks of a conscious being, namely sense experience, mind, intelligence and self-awareness. It will be argued that a great leap in the basic foundation of scientific concepts such as active semantic space is necessary to build such conscious machines. Dr. Behera will provide an alternate view based on ancient Indian philosophy of *Bhagavata Sankhya* to explain different levels of consciousness. Based on these lines, he will propose a method to build an artificial conscious machine.