## Dynamic Modeling and Vibration Analysis of a 6-DOFs Industrial Robot Considering Joint Flexibility

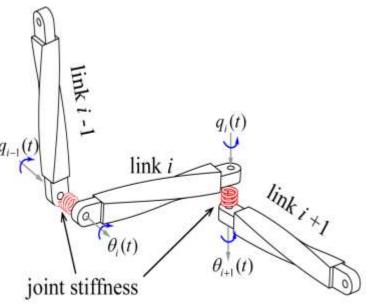
## Guodong Shen<sup>1</sup>, Sheng Xu<sup>1,2</sup>, Chunjie Chen<sup>2,3</sup> and Qiang Wang<sup>1</sup>

<sup>1</sup>Shandong Institute of Advanced Technology, Chinese Academy of Sciences, Shandong, 250102, P.R.China <sup>2</sup>Guangdong Provincial Key Lab of Robotics and Intelligent System, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, 518055, P.R. China <sup>3</sup>CAS Key Laboratory of Human-Machine Intelligence-Synergy Systems, Shenzhen Institute of Advanced Technology, Shenzhen, 518055, P.R. China.

 This paper is concerned with the dynamic modeling and vibration analysis of multi-DOFs industrial robot considering joint flexibility.

• A dynamic model based on Kane method developed to analyze the vibration characteristics under different joint stiffnes parameters.

The results of the proposed strategy can bused to design an accurate model-based controller for an industrial robot.



The schematic diagram of the joint flexibility