Managing the Dynamics Of New Technology: Issues In Manufacturing Management

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Technology management needs to be separated from research and development (R&D) management. R&D management refers to the process by which a company runs its research laboratories and other operations for the creation of new technologies. Technology management focuses on the intersection of technology and business, encompassing not only technology creation but also its application, dissemination, and impact. Michael Bigwood suggests that New Technology Exploitation (NTE) lies somewhere between R&D and New Product Development, with characteristics of the cyclical learning process of Guoqing Zhang (Managing Guest Editor) Supply Chain Management and Logistics Optimization Research Center University of Windsor Canada Email: gzhang@uwindsor.ca.

Prof. Xiang Li The School of Business Beijing University of Chemical Technology China Email: lixiang@mail.buct.edu.cn. Prof. Ali Diabat Civil and Urban Engineering New York University Abu Dhabi United Arab Emirates Email: diabat@nyu.edu. Call for paper: Special Issue in International Journal of Production Economics on Exploring supply chain structural dynamics: new disruptive technologies and disruption risks. Guest Editors: Alexandre Dolgui, Dmitry Ivanov. Small and Medium Manufacturing Enterprises and Asia’s Sustainable Economic Development. Call for Papers.
In the race to implement new manufacturing technologies and systems, such as the Industrial Internet of Things, it is often forgotten that factories and operations already have systems in place and the inner workings of these systems tend to actively resist any change forced upon them. This new program is designed to help manufacturing executives and frontline leaders implement technological change at their companies while developing a company culture that puts people first. Implementing Industry 4.0: Leading Change in Manufacturing & Operations is a new program designed to help executives implement large scale technological change. Topics discussed include Technology dynamics is broad and relatively new scientific field that has been developed in the framework of the postwar science and technology studies field. It studies the process of technological change. Under the field of Technology Dynamics the process of technological change is explained by taking into account influences from "internal factors" as well as from "external factors". (1992). "The management and evaluation of technological programs and the dynamics of techno-economic networks: The case of the AFME." Research Policy 21(3): 215-236. Geels, F. W. (2002). Managing technology in society; the approach of constructive technology assessment. London, Pinter. Rotmans, J., Kemp, R., Asselt, M. van (2001). Those who manage technological change must often serve as both technical developers and implementers. As a rule, one organization develops the technology and then hands it off to users, who are less technically skilled but quite knowledgeable about their own areas of application. We discuss the first two of these issues in this section of the article; the third we cover later. Marketing Perspective. Selling top management on the case for new technology without simultaneous involvement of user organizations in the decision-making process is not enough. It is equally important for users of an innovation to develop "ownership" of the technology. The meaning of this term depends largely on the scope of the project.