東南大學
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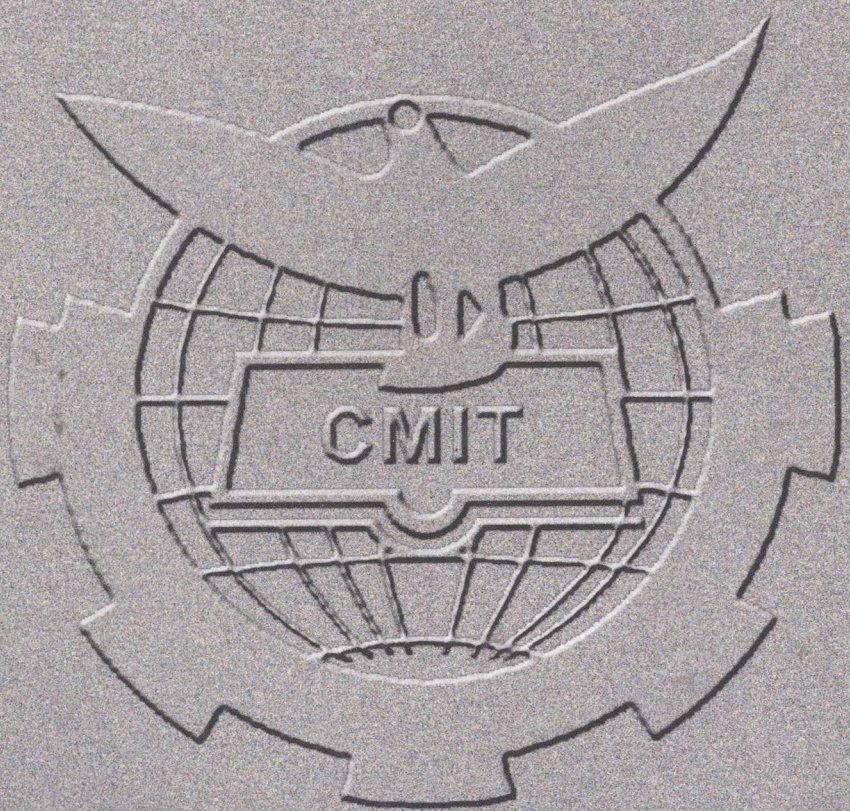
Proceedings of The 9th International Conference on Modern Industrial Training

Creating Contents and Enhancing Quality of Modern Industrial Training

Nanjing,China
27-30 October 2009



东南大学出版社
SOUTHEAST UNIVERSITY PRESS

Proceedings of The 9th International Conference on Modern Industrial Training

Creating Contents and Enhancing Quality of Modern Industrial Training

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SOUTHEAST UNIVERSITY PRESS

Nanjing, CHINA

图书在版编目(CIP)数据

现代工业训练的内涵创新与质量提升：Creating Contents and Enhancing Quality of Modern Industrial Training：英文/东南大学，香港理工大学等著. 南京：东南大学出版社，2009.10

(Proceedings of The 9th International Conference on Modern Industrial Training)

ISBN 978-7-5641-1891-4

Ⅰ.现… Ⅱ.①东…②香… Ⅲ.机械工程—文集—英文 Ⅳ.TH-53

中国版本图书馆 CIP 数据核字(2009)第 176227 号

出版发行：东南大学出版社

Published by：Southeast University Press

Telephone：86-25-83792328

经　　销：全国各地新华书店

Marketed by：Xinhua Bookstores

印　　刷：南京玉河印刷厂

Printed by：Nanjing Yuhe Printshop

开　　本：880mm×1230mm　1/16

印　　张：36

字　　数：1 400 千

版 印 次：2009 年 10 月第 1 版第 1 次印刷

Date of first publish：October 2009

书　　号：ISBN 978-7-5641-1891-4

定　　价：150.00 元

Price(RMB)：￥150.00

PREFACE

High growth of Chinese economy and increasingly intense competitiveness in international market have made still greater demands on cultivation of qualified personnel. In order to sustain the continuous growth of the industry and economy and foster the compound talents with creativity, Chinese government has greatly increased strength and deepness of the reform on high education of engineering, especially on practicing teaching and bases construction. In the last ten years, basic changes have been taken and unprecedented achievement and development have been made in practicing teaching and bases construction. The goal of practicing teaching in engineering education has been preliminarily fulfilled that learning processing knowledge and training operating skills have been transferred into learning processing knowledge, strengthening practicing abilities, enhancing comprehensive character and cultivating creative spirit and ability.

From 2006 to 2009, thirty-three training centers have been chosen as demonstrating centers, and about nine engineering training courses have been chosen as fine courses, and two teachers have been chosen as prominent teachers in nation. The most of universities with engineering majors have set up engineering training centers and relating courses. The reform and exploration on practicing teaching have become the most active and creative part of the reform on the teaching system of engineering education, some of which have won a prize in the public appraisal of sixth national teaching achievement prizes which was just over.

As large-scale building of engineering training centers has been basically completed, the focal points of the reform and exploration on engineering practicing teaching must be made to create contents and enhance quality of engineering training in coming few years, and meantime the ideas and ways merging modern industrial training into engineering practicing teaching should be sought, which is the theme of the 9th CMIT. Through the conference educators and trainers can review and exchange innovative ideas and experience in the reform and exploration on modern industrial training, so as to promote the further development of engineering practicing teaching and modern industrial training.

Finally, we greatly appreciate the hard work and contribution of the paper authors, and specially Members of the Organizing Committee and the Academic Committee.

Editors

28 September 2009

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Professional Training in Environmental Safety and Health

Research on Theories, Models and Systems of Modern Industrial Training

ENHANCING PRACTICALITY AND INNOVATION TO BUILD NEW TALENT TRAINING PATTERN

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ABSTRACT

In this paper, based on the investigation and analysis of the problems in the existing talent training pattern, a new one that emphasizes teaching, practice and innovative training was pointed out and preliminarily practiced.

KEYWORDS

the practice of training; innovation training; talent training pattern; teaching resources

1. INTRODUCTION

Recently, practice and innovation training have become the focus of engineering education reform and the hotspot of social concern. Although it is generally felt that the weakening of practice and innovation in talent training resulted in the disjunction between the social demand and the personnel training, but the tradition of emphasizing theory and neglecting practice, the significant deficiency of teaching resources and the costs of practice and innovation are still restrict the improvement of teaching environment. Science research fund input is more than teaching research one, but the science research support for undergraduate teaching is still inadequacy. Therefore it's immediacy to improve the practice and innovation training. The author holds that coordination of new educational idea, straightening out professional setting, the general unified design of curriculum, teaching operational system and teaching content and careful analysis of problems in existence is the only way of improving reform talent educating pattern. By means of teaching and scientific research resource integration and decrease of teaching cost through management, new talent training pattern should be constructed.

2. THE TRADITIONAL TALENT TRAINING PATTERN AND THE MAIN PROBLEMS

Acquiring knowledge broadly and laying a good foundation of basic theories have always been the starting point for the undergraduate students' cultivation. Especially in the 90s last century, since we had brought forth the teaching philosophy of wide caliber and thick foundation, a teaching and training pattern for undergraduates had been formed in fact. The main body of the talent training pattern was the theory teaching, and the supplement was the practice teaching. Also in this training pattern, we strengthened the foundation of general knowledge, and ignored the differences between majors. Moreover, because of the deepening of the reform and opening-up, the explosive growth of scientific knowledge, the expansion of the existing teaching-learning system and the decline impact of off-campus internship environmental, gaining more new technologies, new knowledge and new curriculum seemed inevitable. Compressing the basic curriculum, the professional curriculum and the practice curriculum academic period was also a necessity. Since in the limited 4-years study period, on the one hand, the new curriculums and new content have been increasing, this pushed us to compress the corresponding academic period to give way. A direct result of compressing academic period was that it breaks out the integrity of many curriculum systems and it made a number of curriculums with depth becoming the curriculums of the Introduction. On the other hand, in order to ease the inadequacy of practice teaching investment and the teaching resources, we can only cut off part of the teaching time in practice passively. In fact, such a training approach which was broad rather than depth, valuing the theory rather than looking down