



**SAFETY ENGINEERING IN FACULTY OF MECHANICAL  
ENGINEERING'S LABORATORIES**

**WIDIA BINTI WAHID**

**(2006133721)**

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**Faculty of Mechanical Engineering  
Universiti Teknologi MARA (UiTM)**

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“I/We\* declared that this thesis is the result of my/our\* own work except the ideas and summaries which I/We\* have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

Signed :  .....

Date : 24.11.2009 .....

**Widia Binti Wahid**  
UiTM No : 2006133721

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## ABSTRACT

In minimizing accidents at workplace constitutes an important agenda for both the public and private sectors in tandem with the goal of a zero-accident workplace. An increasing in productivity and an improvement in workplace environment are the results from good safety and health work practices and the implementation of a work safety culture. Unfortunately, many people are not aware of the importance of occupational safety and health until an accident, injury or fatality occurs. Each year, a large number of people die and get seriously injured either non-permanent disability or permanent disability due to workplace especially in manufacturing field. Safety at workplace or occupational safety is an important aspect in engineering especially mechanical engineering. Safety is not just about safety posters, slogans, rules and regulations, meetings investigations or inspections. Safety is an attitude and an awareness of our environment and actions in our daily activity. Consequently, the safety precautions and the safety awareness should be exposed to the students and staffs in order to improve the quality of life at the workplace. This project deals with the safety issues, hazard identification and risk assessment and determining control (HIRADC) on the activities that are carried out in foundry laboratory, observation at the faculty of mechanical (FKM) laboratories, industry and similar institution. These activities are done to achieve the objectives of this project which are to enhance safety awareness among FKM's students and staffs, to increase quality of life due to safety practices and accident prevention and to propose some recommendations. Laboratories are potentially dangerous places where the users are exposed to the chemical and physical hazards that are present. Lack of knowledge could lead to an injury and accident. Therefore, the

current practice of safety will be highlighted and some recommendations are proposed to reduce the unwanted phenomenon of accident to achieve the goal of a zero-accident and good quality of life at the workplace.