# 5-DAY COURSE ON MIKE SHE **HYDROLOGICAL** MODELLING SOFTWARE: **TECHNIOUES &** APPLICATIONS

Reported by: Ir. Marlinda binti Abd. Malek, Water Resources Technical Division

#### BACKGROUND

The Department of Civil Engineering, Universiti Tenaga Nasional with the collaboration of the Water Resources Technical Division. The Institution of Engineers, Malaysia. (IEM) has conducted a 5-Day course on Mike She Hydrological Modeling Software for participants from industries, research institutions, local authorities, consultants and universities. The course was held from 29 March 2004 till 2 April 2004 at the College of Engineering, Universiti Tenaga Nasional.

### COURSE OBJECTIVE

In recent years, the available water resources have been under pressure due to increasing demand by the industry and for domestic water supply. As a result, techniques for investigating surface water and groundwater have been developed, the concept of resource management has been established, and research has contributed to a better understanding of the subject. One of the latest developments is the use of software, in this case the MIKE SHE Hydrological Modeling Software, which can be used for the analysis, planning and management of a wide range of water resources and environmental problems related to surface water and groundwater.

#### COURSE CONTENTS

- Surface water impact from groundwater withdrawal.
- Conjunctive use of groundwater and surface water.
- Wetland management and restoration.

- River basin management and planning.
- Environmental impact assessments.
- Aguifer vulnerability mapping with dynamic recharge and surface water boundaries.
- Groundwater management.
- Floodplain studies.
- Impact studies for changes in land use and climate.
- Impact studies of agricultural practices including. irrigation, drainage, and nutrient and pesticide management.

The course comprised of lectures on the theory of MIKE SHE Hydrological Modelling and laboratory sessions with hands-on experience using the software. The training was conducted by Dr Michael Juul Lonborg of DHI Water and Environment, Denmark,

#### CONCLUSION

The overall response, the evaluation by the participants and the financial performance of the course indicated that the objectives of the course were met and the course was successful. The blend of participants, which comprises of both public and private practitioners, and academicians and researchers have indeed supported the course. The experience gained in conducting this course would certainly help in organising similar courses in the future.

# ENGINEERS JOKE

## SOCIAL SKILLS

Engineers have different objectives when it comes to social interaction. "Normal" people expect to accomplish several unrealistic things from social interaction:

- Stimulating and thought-provoking conversation · Important social contacts
- · A feeling of connectedness with other humans In contrast to "normal" people, engineers have rational objectives for social interactions: · Get it over with as soon as possible.
- Avoid getting invited to something unpleasant.
- · Demonstrate mental superiority and mastery of all subjects.