

PREFACE

Water has been recognized as a basic and crucial natural resource for economic development. However, the availability of water does not match with the demand in terms of quantity and quality in time and space. The conservation and optimum utilization of this scarce resource is extremely important for national economic development. Because of increasing population and higher living standard, future water demands for water supply, irrigation and hydropower are going to increase substantially. Further, in view of the limited availability of good storage sites and because of the increasing social and environmental constraints, new water resources projects are hard to conceive and develop. This essentially calls for integrated river basin planning and application of systems techniques for optimum and efficient management of available water resources. Significant research contributions have been made by several institutions working in the area of water resources. With expertise and experience in R&D widely spread out in the country, it becomes highly desirable to provide a forum to meet together, share thoughts and experiences and take a look at the current issues and future directions. In this context, a one day brain- storming session on the topic "**Application of Systems Techniques for Water Resources Management in India - Current Trends and Future Directions**" is being organized in the Institute.

During this brain-storming session, experts from State/Central Government Organisations and Academic Institutes are invited to present theme papers. This volume is a compilation of the theme papers presented here. The authors deserve all praise for enriching the volume by their valuable contribution. It is hoped that the water resources planners, policy makers and particularly, the water resources managers, will be benefited by the deliberations and discussions during this session and the recommendations of the session would guide the research community in marching towards the right and needful direction.

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