

Introducing new Council members

Professor H.R. Phillips was born in South Wales. After graduating with a B.Sc. degree in electrical engineering from the University of Bristol, he joined the National Coal Board's management training programme. After five years' experience on various mines within the South Wales Area of British Coal, he joined the staff of the Department of Mining Engineering, University of Newcastle upon Tyne, where he obtained both an M.Sc. and a Ph.D. degree in mining engineering.

In 1977 he emigrated to Australia, where he was a lecturer, and then Senior Lecturer, in the School of Mines at the University of New South Wales.

Professor Phillips was appointed to the Chair of Mining Engineering at the University of the Witwatersrand in 1985, and became Head of Department in January 1986. Since the beginning of 1989, he has also been Deputy Dean of the Faculty of Engineering at Wits.

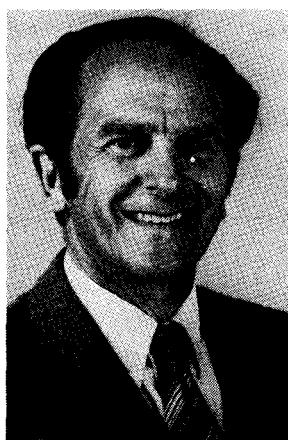


Mr B. Moore was born in Coventry, England. He matriculated at Bablake School and then attended Birmingham University, obtaining a B.Sc. Mining Engineering degree in 1953. He joined Gold Fields in South Africa immediately upon graduating and has worked for that company ever since.

His career started as a Learner Official at West Driefontein. In 1967, when he was an Assistant Manager at the Mine, he was transferred to Head Office as a technical assistant. He was promoted to Assistant Consulting Engineer in 1969 and Consulting Engineer in 1970. For the first ten years of his time in Head Office, he was concerned mainly with coal and base-metal mines, and was seconded to manage The South West Africa Company in Namibia for almost a year. Thereafter, he consulted for various gold mines and was project leader for both the Northam Platinum and the Leeudoorn ventures.

He was promoted to Senior Consulting Engineer in 1985, in which position he continues to co-ordinate and lead the technical affairs of the Gold Fields Group.

He is Chairman of the Johannesburg Branch of the Institute.



Professor J.S.J. (Jannie) van Deventer matriculated at Swellendam High School. He studied chemical engineering at the University of Stellenbosch, and obtained the degrees of Hons. B. Ing. in 1978 and Ph.D. (Ing.) in 1985. He also received an Hons. B.Com. in business economics from UNISA in 1982, and is continuing his studies towards a doctorate in the field of technology management. Being a registered Professional Engineer, he is also a member of the South African Institution of Chemical Engineers.

After two years of military service in the S.A. Engineers' Corps, he joined the University of Stellenbosch in 1981 as Senior Lecturer in metallurgical engineering. Since 1987 he has been Associate Professor responsible for the teaching of courses in minerals processing and the supervision of research students. In 1988 he was visiting professor at the Western Australian School of Mines in Kalgoorlie, and participated in collaborative research with the University of Queensland.

Having published 50 papers, his current research includes adsorption onto activated carbon, ion exchange, leaching, flotation, and the use of artificial intelligence and expert systems in plant simulation.

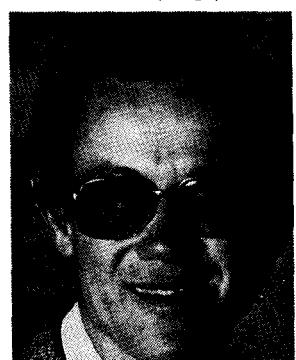
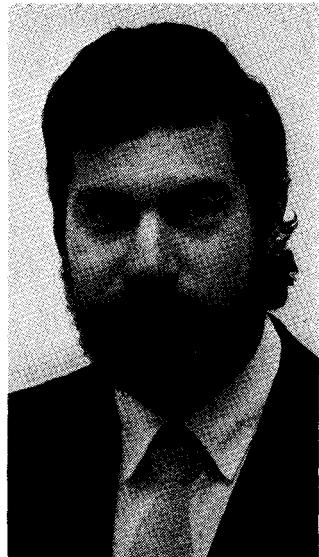
Professor M.D. Brayshaw received most of his education in England but obtained his Ph.D. (Eng.) at the University of Natal.

From 1971 to 1974, he worked at Tsumeb Corporation, supplementing the practical experience he had gained from a 4-month period (during his university studies) at Mount Morgan in Australia.

After working at Mintek (then the National Institute for Metallurgy) from 1978 to 1981 mainly on flotation and classification, he joined the Diamond Research Laboratory, where he was engaged for 2 years on mathematical modelling, the operation of a large crushing and screening plant, and the general extractive metallurgy of the diamond-recovery process.

In April 1983, he became Associate Professor in Extractive Metallurgy at Potchefstroom University for CHE.

He is Chairman of the Vaal Triangle Branch of the Institute and is also a member of several other professional institutions.



Rock fragmentation by blasting

The Third International Symposium of Rock Fragmentation by Blasting will be held in Brisbane, Australia, from 26th to 31st August, 1990.

The Third International Symposium of Rock Fragmentation by Blasting is designed to inform delegates on the state of the art in explosives and blasting technology, and to build on the standards of excellence set by the previous symposia in Lulea, Sweden (1983) and Keystone, Colorado (1987). Delegates with an operational, technical, or research focus on blasting will gain from this interactive symposium.

The Organizing Committee is seeking quality papers with particular emphasis on application and innovation as they apply to blasting technology.

The Symposium has been organized into technical sessions, seminars, and a workshop to provide for increased discussion and interaction between presenters and delegates.

Papers are invited in the following broad categories for presentation at the Technical Sessions over four days:

1. *Blasting Physics.* Reaction dynamics, non-ideal explosive behaviour, and the influence of product additives on detonation.
2. *Instrumentation and Measurement.* Including fragmentation measurement, in-hole velocity of detonation measurement, and other quantitative assessments of blasting.
3. *Explosive Performance Evaluation.* Field and underwater evaluation of product performance under viable conditions.
4. *Initiation Systems.* The development of new initiation systems (including primers), delay accuracy, and its influence on blasting.
5. *Fragmentation Mechanics.* Mechanisms of rock breakage during blasting, with particular emphasis on the interaction between explosively driven cracks and existing fractures.
6. *Modelling and Computer Applications.* Process simulation of fragmentation, muckpile profiles, surface vibration, damage, and fracture distributions, together with innovative software for the design or evaluation of blasting.
7. *Blasting Economics.* The influence of blasting and blast design modifications on mining economics

through investigation of total mining and processing costs.

The Organizing Committee will review all abstracts and will select authors to submit papers based on their abstracts.

A workshop will be held on the morning of Friday, 31st August, with the general theme of 'Failures in Blasting'. This workshop will aim to promote an open discussion on technical diagnostic capabilities in blasting. The workshop is expected to draw upon the considerable available technical expertise to identify causes and contributing factors behind specific, real blasting problems.

Contributors are invited to submit abstracts outlining the difficulties encountered in blasting, the extent of diagnosis undertaken, and the impact of complications on the operation. Contributors must submit final papers for assessment by the Technical Review Committee.

Technical Seminars

Seminars have been scheduled for the presentation of new technological developments. Approximately one hour has been allocated from 4 p.m. on Monday, Tuesday, and Thursday of the Symposium. Concurrent presentations (to a maximum of three sessions) will be scheduled to allow for smaller focused audiences and extended discussions.

The Organizing Committee will allow contributors considerable flexibility in format so that they can effectively communicate ideas and demonstrate models, equipment, or methods.

Proposals for presentations at seminars should be submitted as abstracts with a general outline of the presentation format. Final abstracts of approved Posters will be published in the Symposium volume.

Further information is available from

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Recent journal

- *Mineral resources engineering*, edited by C.T. Shaw, T.L. Carr, and M. Karmis. London, Taylor & Francis, 1989. Published quarterly. US \$107 per year.

This journal, which has completed one year of publication (4 issues), specializes in the introduction and applica-

tion of new technologies within the surface and underground mining industries; the transfer of technologies between mining and related industries; the management of the introduction of change; and the relationship between performance, cost, safety, and human factors.

Risk management

The Cost Engineering Association of Southern Africa (CEASA) is to hold its 3rd Biennial Symposium at Indaba, Midrand, on 25th and 26th January 1990. The title of the Symposium is Risk Management in Promotion of Capital Projects.

The present political and economic environment in South Africa is characterized by a lack of financial resources, and of technical and management skills, on the part of project owners, designers, and contractors/vendors. If not effectively managed, this will result in additional project risks and inefficiencies. Therefore, the objectives of the Symposium are threefold:

- to appraise the impact of the broader economic factors on successful planning in the management of capital projects in Southern Africa through the 1990s,
- to examine critical risk areas that must be addressed to identify and promote capital projects in Southern Africa,
- to evaluate the application of cost-engineering and contract-administration principles in the promotion of actual projects—primarily through the presentation of case studies of projects at present under design or construction in Southern Africa.

The Symposium will be of interest to professionals and decision-makers involved in the identification, planning, appraisal, and management of projects (mining, petrochemical, industrial, building, and construction) as financiers, project managers, designers, estimators, planners, and constructors.

The Symposium will be divided into four sessions dealing with different themes in the field of cost engineering. Each session will start with a keynote lecture by a local or international authority, and will continue with contributed papers by local experts from universities and industry. Poster presentations will also be included, as will exhibitions of computers and book displays.

Session One: Economic Climate and Capex Projects

- The economic climate in South and Southern Africa through 1995

- Co-ordinating the role of the public and private sector in the promotion and financing of Capex Projects
- Availability of project finance
- Skills and manpower availability and training for management and control of Capex projects
- Impact of political and other socio-economic factors on the management of projects.

Session Two: Cost Engineering and Corporate Profitability

- Impact of Capex management on corporate profitability
- Management of risk in Capex projects
- Management of project escalation and foreign exchange
- Project finance and cost engineering.

Session Three: Cost Engineering Methodologies and Their Use in the Management of Project Risks

- Project identification, evaluation, and approval
- Cost estimating and control systems
- Planning and scheduling systems
- Project monitoring and reporting
- Cost engineering in the manufacturing environment
- Computers in cost engineering.

Session Four: Contract Administration and Management of Risks

- Appropriate use of different types of contracts (contract strategy)
- Prevention and management of claims
- Appraisal of contractor/vendor competence.

Enquiries should be addressed to

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Wits
2050.