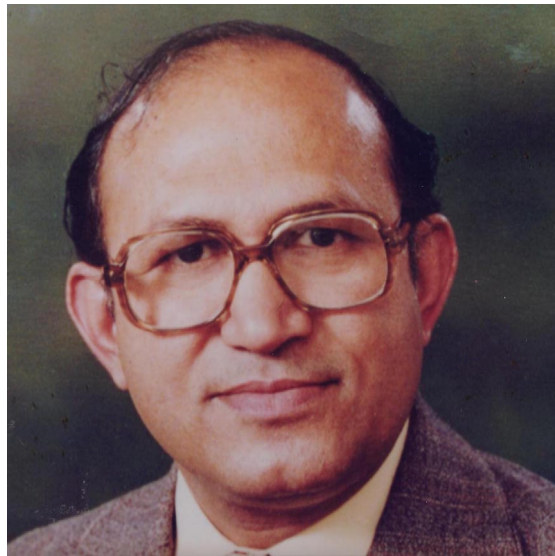


**PROCEEDINGS OF THE 2002
COAL OPERATORS' CONFERENCE**

TRIBUTE TO DR RIPU DAMAN LAMA



UNIVERSITY OF WOLLONGONG, NSW

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FOREWORD

In arranging the *COAL2002* Conference the Organizing Committee have taken the opportunity of remembering the contributions of the late Dr Ripu Daman Lama to the science of coal mining in Australia and honouring him for his work. Dr Lama made significant contributions to the coal mining sciences and was a world leading authority in seam gas research before his death in January 1997. The Australian Coal Industry was fortunate that Ripu came to Australia in 1975 and provided his expertise in so many technical areas. Included in this volume is a joint paper which was prepared during the last months of 1996 by Ripu.

Dr Alan Hargraves was honoured in the *COAL2001- Geotechnology Colloquium* and it is appropriate at this time to recognise the achievements of Dr Lama. Ripu's particular areas of expertise lay in geotechnology and outburst management and the *COAL2002* Conference technical program has been oriented towards presenting the latest developments in these two fields. Ripu became an internationally recognised expert in those disciplines and we honour him for his achievements.

Ripu was a fellow of The AusIMM and apart from his many technical publications was a frequent presenter of talks to the Illawarra Branch of which he was a Committee member. One of his major contributions was his role as Convenor, Chairman, Editor and driving force for the *International Symposium on Management of Gas Emissions and Outbursts* held in Wollongong in 1995. This Symposium gave birth to the local *Gas and Coal Outburst Committee* which is a part of the organisers for this Conference.

The *COAL2002* activities include a keynote address by Mr Bruce Allan, Vice – President of BHP Billiton Illawarra Coal, in which he challenges the coal mining industry “to attract, support and house potential Champions to find safe and economic methods to understand and manage the phenomenon of gas and coal outbursts”.

John Hanes, Coordinator of ACARP In-Seam Drilling and Gas Research organised one-day Pre-Conference workshop on *Outburst and Gas Management*. Thanks to John and his team of experts for providing an excellent professional development program. The workshop notes are included in this volume as an appendix.

The *COAL2002* Conference has been generously supported by the following organizations:

- ENEX Resources (*Major Sponsor*)
- Coal & Allied
- BHP Billiton, Illawarra Coal
- Strata Control Technology Pty Ltd
- Ground Consolidation
- Roadway Reinforcement Services
- Fosroc

Our thanks go to the authors who have accepted the invitation to contribute and present papers at this Conference. They represent a cross section of the developments in the coal industries in Queensland and New South Wales.

The AusIMM Illawarra Branch and the organising committee are extremely grateful to all the above for their support.

The success of the *COAL2002* Conference is in no small part due to a personal commitment by a number of individuals who worked so hard behind the scenes. Special thanks are due to the speakers, session chairpersons, Maureen Prince for her help at the registration desk, the University of Wollongong staff - especially Gordon Nolan and Gary Piggott of Printery Services, Bruce Robertson of the Audio Visual Unit, Leonie McIntyre of the Faculty of Engineering for typesetting the Conference proceedings, and finally the Organising Committee.

Ernest Baafi, Associate Professor, University of Wollongong
Bob Kininmonth, Chairman of Gas and Coal Outburst Committee

PREFACE

The Engineering Faculty has an excellent track record for organising conferences on Mining Engineering. The Faculty has brought together practising engineers, researchers and scholars from all over Australia and from the best Mining Engineering Centres in the world. Our colleagues in Industry have always assisted us in the organisation of conferences and we have had the support of The Australasian Institute of Mining and Metallurgy (AusIMM). In fact, the local branch of The AusIMM has been a key player in organising and hosting conferences, seminars and other professional activities. We are very proud of these close links between the University and Industry. This achievement of the Faculty reflects what is true of the University as a whole. As you well know, the University has been recognised as the University of the Year in two consecutive years and one of these awards was for outstanding R&D partnerships.

The Coal Operators Conference series is the most recent and significant example of a collaborative endeavour between industry, academics, researchers and The AusIMM. This is the third conference in the series and I am sure there will be more to come.

The third Conference is dedicated to the memory of the late Dr R.D. Lama. Dr Lama started his career in academia which included his first research projects and then he played a leading role in a senior capacity as a professional mining engineer and as a research manager.

He combined love of scholarship and research with a keen awareness of the many interesting problems and issues in modern mining engineering. Dr Lama worked closely with the academic staff of the faculties of Science and Engineering at this University and, in particular, he was closely involved with the Mining Engineering academics. His collection of research papers is currently housed at the Faculty of Engineering. He devoted many years of his life to the use of latest knowledge and emerging technology for advancing the profession. He directed his considerable research effort to solve real-world problems of significance. Consequently, he gained the respect of industry colleagues everywhere. It is entirely appropriate that the leaders amongst the mining industry have joined with the Faculty of Engineering in honouring the memory of this man who passed away prematurely. The profession is poorer for the loss of Dr Lama. However, his example will be valuable to the profession and especially to young engineers.

*Professor Robin Chowdhury
Dean of Engineering, University of Wollongong*