



Dear Dr Silvério,

I have the honour of submitting to the ISRM Award Committee for a nomination for the Manuel Rocha Medal 1982, my thesis "Aplicação de Modelos Matemáticos ao Estudo de Túneis em Maciços Rochosos" (Mathematical Modelling of Rock Tunnels). This thesis was written up at the Laboratório Nacional de Engenharia Civil (LNEC) under the supervision of Prof. Manuel Rocha, and was submitted at the LNEC in December 1980, in partial fulfilment of the requirements for the technical degree of Specialist in Rock Mechanics.

The discussion took place on June 4, 1981, a short time before Prof. Rocha's death, and the thesis was accepted and graded "Exceptional" by a juri composed of: Mr. Ulpio Nascimento, Under-Director of the LNEC and Head, Geotechnique Department; Mr. António da Silveira, Principal Research Officer and Head, Dams Department; Mr. Manuel Barroso, Research Officer and Head, Underground Construction Division; Mr. Castel-Branco Falcão, Research Officer and Head, Special Geotechnique Studies Division; Mr. Luis de Sousa, Research Officer, Underground Construction Division; and also Mr. Mello Mendes, Professor of Mining Engineering, Instituto Superior Técnico (School of Engineering), Technical University of Lisbon.

Please find enclosed one copy of the complete thesis in Portuguese, with the original short synopsis in English and containing 331 pages of text with 203 figures, plus 10 pages listing 123 references and two appendices with 23 pages.

For nomination purposes, full English translations of the table of contents and list of figures are added, as well as an extended English summary aiming at conveying the more important features of the thesis. I am also enclosing a letter from Mr. Ferry Borges, Director of the LNEC, referring to the meaning and level of the technical degree of Specialist conferred by the National Laboratory.

Finally, as required, I have the pleasure of submitting a brief vita of mine:

ANTÓNIO JOSÉ VINHA PINTO DA CUNHA, 34 years old, born in Lisbon, Portugal, May 22, 1947 and Graduated with honours as Civil Engineering by the Instituto Superior Técnico of the Technical University of Lisbon in 1971.

While still a University student (1970) I became associated with the LNEC as a Trainee in the Applied Mathematics Division. After graduation (1971), I joined the Dams Department, as a Trainee Research Officer at the Foundations and Tunnels Division, then, in 1972, at the new-born Underground Construction Division.

In 1981, with the acceptance by the LNEC of my thesis "Aplicação de Modelos Matemáticos ao Estudo de Túneis em Maciços Rochosos" (Mathematical Modelling of Rock Tunnels), I was promoted to Research Officer. In my Rock Mechanics activity at the LNEC, I have taken part, among others, in the geotechnical studies of Alqueva, Aguireira, Rebordelo, and Fratel Dams, and the Meimoa, Castelo do Bode, Funcho and Alto Lindoso Tunnels, as well as in the monitoring of the Morgavel Tunnel. I have also lectured on "Geotechnical classification of rock masses", "Design methods for underground structures", and "Monitoring of underground structures" in the Course "Excavation of Rock Masses" organized by the LNEC in 1978,79, and 80.

Since graduation, I have been teaching at the Instituto Superior Técnico of Lisbon, in the Mathematics Department, formerly as an Assistant Lecturer and presently as an Invited Lecturer of Linear Algebra and Analytical Geometry. Furthermore, starting 1976, I had the honour of being Assistant to Professor Rocha for Underground Structures in the Post-Graduation Courses in Geotechnique of the New University of Lisbon, having carried out the impossible but quite flattering mission of replacing Professor Rocha in his lectures, during his extended illness in 1981 and, after his death, as an Invited Lecturer.

Meanwhile, I have also been publishing a number of technical papers and accomplishing some activity in design and consulting in the Civil Engineering area.

I hope I will have fulfilled with the enclosed elements all the nomination requirements, however I remain at the ISRM's disposal for any additional information that may be needed.

With kind regards,

Sincerely yours,



António Pinto da Cunha

Encl.

APC
APC/LC