From the Editor's desk

The Indian Institute of Welding sagaciously organises international events such as the International Welding Seminar every year. Aspiringly, some of the branch organisations also organise such international events wherefrom mutual benefits are drawn by all concerned, and so it should be in today's world. Befittingly this issue of the journal contains the details of the "Agreement for International Professional Cooperation between Welding Technology Institute of Australia and The Indian Institute of Welding" which was concluded on 16.02.99. Some of the professional cooperations which would mutually benefit the members of the two signatory institutes include joint (commercial) ventures and exchange of technical information besides the agreement to jointly organise conferences in each other's country, waive such formalities as conference fees, exchange publications and educational materials. We welcome the "Agreement". Further, the paper entitled "A vision of IIW's role in various World Regions and Developing Countries" by Chris Smallbone, Executive Director of Welding Technology Institute of Australia (WTIA) and Director & Board member of International Institute of Welding (IIW), summarises the objectives of IIW and its perspective, in some respects, could affect emerging industrial countries such as India. For instance, the "International scheme for the qualification of personnel involved in welding operation" allows the Authorised National Bodies (ANBs) when set up, to deliver under the control of IIW, Diplomas of International Welding Engineers, Technologists, Specialists and Practitioners. The certificate holders are de facto recognised as being able to be welding coordinators according to the ISO Standards. It needs to be emphasised that the Indian Institute of Welding, as a part of its Education Programme, is pursuing for such a national body.

In the paper "Welding Research and Development in Australia" the authors, Chris Smallbone and Nasir Ahmed, while outlining the general role of the Welding Technology Institute of Australia (WTIA), highlight the remarkable achievements of the Institute in reorganising and coordinating the 60 odd Cooperative Research Centres (CRCs) and meeting the needs of the industries, in the process of which substantial Federal Government (Australia) funding was also procured for their R&D programme. This is a noteworthy State–Industry–Institute cooperation.

The role of carbon and carbon equivalent (alloys) on hardness and hardenability as a function of heat input and cooling rate has been characterised for cracking, no cracking condition in the paper "Weldability Map of Low Alloy Steel". The author V. M. Radhakrishnan has illustrated assessed information cartographically. Welding technologists could reap benefit from such ready reference standards.

The necessity of continuously upgrading welding personnel for the erection and maintenance of hydroelectric projects (much as in any other industry) has been illustrated in the paper "Utilisation of Welding technology in the Erection of Electro–mechanical Equipment in Hydroelectric Projects". In the paper, the authors N. Visvanathan et al take a view of the welding procedures as are employed in the HE projects in difficult terrains of the country, also highlight the demand for underlying HRD aspect. Quantitative analysis of transient heat flow in arc Welding has shown that it complies closely with the theoretically predicted values, as presented by the authors A. K. Pathak et al in their paper "Three Dimensional Finite Element Analysis of Heat Flow in Arc Welding". Considering experimental limitations, use of 3D FEA method seems to be gaining ground, which is under close scrutiny.

The July issue of the Journal is coming out late during August. Economic management apart, late receipt of materials for publication has caused this delay which we sincerely regret.

— **P. Majumdar**
Editor