

## The Bhuj Earthquake



One has had the privilege to meet Prof Vinod K Gaur on the NAL-CMMACS campuses quite frequently for well over a decade. He has chaired or presided over numerous meetings, offered us advice on several modelling problems and been the guiding spirit to uncountable scientists and students. But I can't recall attending even a single formal lecture on the NAL campus by Prof Gaur. This surprising exclusion was "corrected" when Prof Gaur most graciously accepted our invitation to deliver this year's National Science Day on The Bhuj

earthquake: What can we learnt from it? The mood was sombre since the sorrow of such a terrible national tragedy is still being strongly felt. Prof Gaur made the important observation that we can do practically nothing to reduce the hazard of an earthquake; but we could certainly reduce the risk of losing lives and property due to earthquakes (risk is defined to be the product of hazard, vulnerability and cost). "It's usually buildings which kill, not the earthquake itself", he said. The lecture was stylish, illuminating and covered wide ground. Prof Gaur spoke of the history of earthquakes, their underlying causes and the best strategies to survive earthquakes; a safe building design is the best insurance. Talking of the "Kobe divide" following the major earthquake a few years ago in Japan, Prof Gaur said that while 70% of the "normally" designed buildings collapsed, only 6% of the "quake proof" buildings collapsed. Were there any "telltale events" preceding the Gujarat earthquake to warn us of a grave impending tragedy? Prof Gaur didn't think so. He did however indicate that there is a "horrendous strain" developing near the Himalayan region, as "India pushes inexorably into the belly of Asia", which doesn't bode well. Could earthquakes be predicted with sufficient accuracy? Prof Gaur suggested that predictions were unlikely to "stand the test of logic", with only one recorded instance of a successful prediction in China in 1975. What can really empower us is knowledge gained through seismic mapping, the use of information technology ("there's no seismic data from India on the Internet") and good disaster mitigation practices. "S&T can help a great deal, but I am dismayed that we are not even using our available S&T expertise", Prof Gaur said. Mr M R Narasimha Swamy welcomed the gathering, Dr T S Prahlad introduced Prof Gaur -- who was also heartily applauded for becoming a Fellow of the Third World Academy of Sciences.



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