

CSIR is 62



The CSIR Foundation Day function -- CSIR was founded on 26 September 1942 -- is one of the special functions at NAL every year; in fact, special enough for NAL to work this year on a Sunday.

The chief guest at this year's function was Prof B N Raghunandan, Chairman, Department of Aerospace Engineering, IISc. Before the function started, everyone in the audience rose to observe a minute's silence in the memory of Dr Raja Ramanna.

Dr M R Nayak, Head, Technical Secretariat then formally welcomed the gathering.

In his opening remarks, Dr B R Pai, Director said that NAL was truly privileged to be a part of CSIR; and indeed to occupy the flagship position in CSIR ("even as we assemble here in Bangalore, our SARAS team is in Delhi to receive the CSIR Technology Shield yet again"). Talking of CSIR's many R&D programmes and initiatives, Dr Pai pointed out how these must eventually result "in benefits for our society and our country". Dr Pai then introduced the day's speakers: Prof Raghunandan and Dr P R Viswanath, Head, Experimental Aerodynamics Division, and indicated how both had worked on technology programmes with direct benefits to the society ("Prof Raghunandan, with ASTRA, has been associated with a large number of successful rural technology development projects, Dr Viswanath led a NAL project to aerodynamically streamline KSRTC buses").



Prof Raghunandan's CSIR Foundation Day lecture titled "Rural technology development -- issues and experiences", was a brilliant narrative. Rural technology development, he began, wasn't about basic research ("that leads to papers in journals"), or industrial research ("that leads to a growth in GNP"); it was really about uplifting rural India. It was really about making life and work more profitable and comfortable for Indians in villages and small towns.

Prof Raghunandan said that rural technologies were "inseparable" from rural development: "They must transform Indian villages, that today possess land, water, bio and mineral resources and unskilled labour, into villages with skilled labour, energy and knowledge".

The challenges in developing rural technologies were very different: these are often small scale, low capital, local technologies that must take into account the social environment, traditional knowledge, availability of local resources and the village eco-systems.

Prof Raghunandan listed the steps involved in developing rural technologies: survey resources and needs, identify possible technologies, reduce to a well-defined R&D problem, build a R&D prototype, carry out field testing, demonstrate, disseminate and replicate the technology.

The lecture ended with case studies of some very successful ASTRA-supported technologies: wood stoves (that raise efficiencies from 5-10% to 30-40% and reduce health hazards), driers (these efficient driers can dehydrate and store produce to protect farmers from erratic markets), bio-gas and alternate building technologies.



Dr
Viswanath's
NAL Business
Lecture on
"Advanced
flow
diagnostics
and
Applications"
was a
remarkable
lecture on

NAL's many initiatives in developing pressure sensitive paints, particle image velocimetry and laser Doppler velocimetry.

Srinivas Bhogle