



PROFILE

MV Kannan, Sci/Engr "G" ISAC/ISRO (Retired)

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36 years and five months (1973 - 2010) of illustrious contributions (From India's first satellite Aryabhata to Chandrayaan-1, First ISRO mission to Moon) in Aerospace structures and spacecraft systems project management with varied career experience in theoretical structural analysis, experimental stress analysis, establishment of static load test facility, Qualification testing of spacecraft structures of all classes, Projects planning, scheduling and monitoring in multi projects environment, Systems Engineering in **ISRO Satellite Centre, Bengaluru.**

CURRENT POSITION: Executive Member, PLANETAEROSPACE, Bangalore

Chief Executive Officer, Space Technologies Division of Grintex India Limited, Bangalore (HQ: Gurgaon). Represented the company as CEO delegate during Minalogic -International Business Meetings held in December 2014 at Grenoble, France.

Qualifications: B. Sc Maths (Madras University), DMIT (Engineering in Aeronautics from Madras Institute of Technology)

Service Career in ISAC/ISRO, Bangalore: 2nd November 1973 to 31st March 2010

Areas of Specialization (specific): Structural Analysis, Spacecraft Structural Testing, Experimental Stress Analysis using Strain gauge techniques, whole filed stress analysis (reflection photo elasticity), System Engineering & Project Management

Previous Experience prior to Joining in ISRO: 4 months (July –October 1973) as Test Engineer (Development of pressure Transducers) – SIETEX Ltd, Transducers Manufacturer, Chennai

Various Positions Held in ISAC:

From 1973 to 1981: Engineer, Structural Analysis (FEM) and software development
Project Coordinator: Design & Analysis, Anuradha (3SAN 21)

Engineer, Experimental Structures
In charge: Experimental Stress Analysis & Photoelasticity
Section Head: Experimental Stress Analysis and NDE
Test In charge: All Structural and composites STATIC load testing and all development test activities, Material Characterization of composites

From 1981 to end 2002: Project Engineer (Structures) : SROSS 1 and 2
Programme Manager (Structures & Mechanisms):SROSS-2
Deputy Project Director (Structures): SROSS C and SROSS C-2, INSAT-3B, GSAT-1

Jan 2003 – end March 2010 (PPEG): Head, Projects Division, PPEG and Space Technology Cell (STC)
Member Secretary (Geosat PMB): INSAT-4B, INSAT-4C, INSAT-4CR

Member (PEB): Chandrayaan-1
DPD (ATC) Human Space Programme: Technical Services

In house Faculty :IITP (ISRO INDUCTION TRAINING PROGRAMME)

Additional Roles in committees as Chairman / Member : Technical Reviews / Management Advisory (Admin/Purchase/Transport/Medical) / DPC & Recruitments/Contracts/ Event Managements (Seminars/Conference/Cultural)
Support for VIPs/VVIPS visits ,Preparation of Presentation materials to Directors, ISRO Council presentations etc
Technical Support to ANTRIX – RFPs

- Patents (2 nos):**
1. Improved Universal Testing Machine –Patent No: 184705 (1995). R.Samuel,K.Haridas,M V Kannan,P.S.Nair and A.V.Patki
 2. A Multichannel Automated Static Load Testing Machine – Application no: 1356/MA S 95. R.Samuel, K.Haridas, V.Kesavan,T.S.Sriranga, M.V.Kannan, P.S.Nair and A.V.Patki
- Awards:**
1. 1975 Distinguished award for Aryabhata
 2. Recipient of ISRO Team Achievement Award 2008 for Project Management
- Memberships(National):** Life Member, ISAMPE,
- Science Educator:** ORACLE –Think.com Education Foundation (2008-2009) – Future Space Science Programme
- Management Training:**
1. Managerial & Personal Effectiveness by Unique Consultants Private Limited-2003
 2. General Management Programme –IIM Bangalore 2004
 3. First NIAS DST course for Senior Scientists/Administrators –NIAS 2004
- 12 Technical and Management in Journals /conferences**
- Technical Papers/Publications:** Over 300 publications /Reports (Technical(Structural Analysis and Testing) ,Experimental Stress Analysis / Project Management)

Major Accomplishments/Achievements in ISAC/ ISRO:

1. In Structures Group, in Structural Analysis, I contributed extensively towards developing various software programs for spacecraft structural analysis using FEM and also responsible in developing beam FEM elements, supported in static and free vibration analysis of ABM structure for APPLE spacecraft. I was fully responsible for static and free vibration Analysis of ANURADHA (3SAN21).
2. AS Head, ESAS and NDE in Experimental Structures Division of Structures Group, I was responsible in establishing experimental stress analysis facility and Static loading test set up for testing large Spacecraft structures and associated structural parts/elements, including composites. As Head of test team, Responsible for successfully qualifying Satellite Structural models of SROSS, INSAT-II, IRS 1C/D, INSAT-2E, IRS TES, IRS-P5, IRS-P6. Besides these, responsible for successfully carrying out tests for developments such as corrugated cylinder compression test, Honeycomb sandwich cylinder (conical) compression test, CFRP cylinder compression test, CFRP/Honeycomb sandwich cylinder test, CFRP panels and Joints load tests, NDT and proof loading of honey comb embedded metallic inserts (room temperature and elevated temperatures) and other testing of structural elements for validating design.
3. As Project Engineer, Programme Manager and Deputy Project Director for Structures, I was responsible in successfully delivering flight structures for SROSS-1, SROSS-2, SROSS-C, SROSSC2, INSAT-3B and GSAT-1 on schedule. Also responsible as Test in charge for successfully executing Sine, Shock and Random, Acoustic tests for all the above spacecraft to flight acceptance/qualification levels. Also participated in Launch campaign at SHAR on few projects.
4. As Head, Projects Division and Satellite Technology Cell,PPEG, I was responsible for programme planning, scheduling, effective tracking and so on, of all spacecraft programme of ISAC

in multi project environment (over 25 concurrent satellite projects) and supporting management efficiently in realizing the projects on schedule. Few of the highlights are Integrated Projects loads assessment, capacity planning and scheduling resources, facility clash analysis, review & addressing issues, Root Cause Analysis and other management techniques to study issues etc and generation of supporting documents time to time. Organising frequent timely reviews by Director of the Centre to resolve issues (technical) foreseen for smooth progress of all projects.

Likewise, Integrated Group Load assessment, capacity planning and resources etc of Line functions (Technical Groups) were the add on factors for realizing subsystems required for satellite projects. Like Project reviews, organizing Technical Group Reviews and TDPs reviews every year were my responsibility, which I could successfully accomplish to the satisfaction of the Top management.

I was a regular faculty in ISRO INDUCTION TRAINING PROGRAMMES (IITP) for fresh recruits in exposing them to ISRO programmes and satellite technologies allied aspects.

As one among three-member team from ISRO, participated in 16th IAA Humans in Space Symposium (IAA-HIS2007 Beijing)

5. Supporting Directors of Centre in preparation of presentations time to time and taking tour of distinguished visitors (National/International) to the Centre.
