RESUME

Name : Dr. N. Sarat Chandra Babu

Designation & Organization : Director
Centre for Development of Advanced Computing (C-DAC)
(A Scientific Society of Ministry of Communications & IT)
Government of India
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QUALIFICATION: Ph.D from IIT Delhi
M.Tech from REC, Warangal (presently NIT, Warangal)
B.Tech from JNTU College of Engineering, Kakinada

Professional Record
Presently working as Director at C-DAC, Hyderabad

Previously Worked at
- As Director at Department of IT , Government of India, Delhi
- As R&D Engineer at Switching (R&D), Indian Telephone Industries Limited, Bangalore
- As Lecturer at Regional Engineering College (REC), Warangal

Areas of Interest
- E-Security
- Embedded systems & VLSI design
- Wireless Sensor Networks & Ubiquitous Computing
- Computer Networks and Computer Architecture
- Electronic circuit fault diagnosis, Neural Networks
- E-Learning & Education Technologies

Experience

29 years in Research, Development, Training and Project planning, Coordination and monitoring, and Creation and establishment of R&D centres

Important Achievements
1.0 Establishing C-DAC, Hyderabad Centre right from the scratch as an Knowledge Centre, with a Sustainable growth model with three arms of Knowledge Creation, Knowledge Dissemination, and Knowledge Application. Presently the centre works on e-Security, Ubiquitous computing, e-Learning, Embedded Systems, and ICT for rural Development areas
2.0 India Development Gateway Portal was designed, developed at Hyderabad centre and was launched on 4th July, 2008 by Her Excellency President of India, Smt Pratibha Devi Singh Patil at Vigyan Bhavan, Delhi. The portal was highly appreciated by Prof. Swaminathan for its novelty in implementation, multi-lingual aspect, ideas for sustainability etc.

3.0 Three R&D sponsored projects resulted in three products namely "EnSafe, e-Sikshak, and e-SaVya". The products are being used by end users and two of the technologies will be transferred to industry.

4.0 Creation of Wireless Sensor Networks Applications Research and Development (WISARD) Lab at C-DAC, JNTU Campus, Hyderabad. This lab focuses on R&D in cutting edge technologies to create a Ubiquitous Environment. The lab includes various ubiquity concepts like Wireless Sensor Networks, RFID, and Wireless Networking.

5.0 Prepare Future: An innovative way of conducting the Faculty Updation Programme with a blended Learning approach to engineering college faculty wassd initiated: This programme was launched by Shri Jainder singh, Secretary, DIT on --- successfully with 70 faculty from all over India registering for this programme

6.0 Collaborative programs with ARM, IICT, JNTU, ICS etc are taken-up in various technology areas

7.0 E-Learning: Under the guidance the centre is poised to become a Centre of Excellence in e-Learning with a walk-in-eLearning Technology laboratory in the area of content development, e-Learning standards, e-learning frameworks, ubiquitous learning, Video streaming etc. An e-Learning portal titled e-Sikshak (www.elearn.cdac.in) is being maintained offering courses on the portal in the e-Learning mode

8.0

9.0 Tie-up with JNT University to work in different areas of common interest, leading to getting office space in the university campus. A number of academic programs are on-going with university in the area of VLSI design, Network security, Bioinformatics etc.

10.0 Based on the rapport built-up with State Government a two acre land was allotted at a nominal cost for construction of building at Hardware Technology Park, Hyderabad. DIT also approved the construction of R&D infrastructure in this land.

11.0 Active participation in Information Security Education Awareness programme as Awareness programme executing agency, participating institute, content development, Government officers training etc.

12.0 Designed and implemented from the concept a new course on Embedded systems design at our centre and also replicated in 9 more of our Centres training around 700 Engineers in a year. The course caters to diverse domains in Embedded Systems like 8/16/32 bit controllers, Operating Systems, Embedded Systems Programming and DSP. Understanding the tremendous development in Wireless Communication the course has been enhanced with Wireless Embedded Systems too and discusses different Wireless protocols and applications like Bluetooth, GSM/GPRS, Zigbee and RFID. As on date under this programme we trained 3000 engineers all over India. We initiated two more courses in the area of Systems software and Business computing in the same lines on pilot basis.

13.0 Member of design team of *First digital Exchange of India* and instrumental in the design of "Subscriber Line Interface Card for long lines and successful transfer of technology to Production unit at Switching R&D division of Indian Telephone Industries, Bangalore

14.0 Coordinated prestigious project "Canal Controls and Communication in Irrigation" for Khadakwasla canal, Maharashtra state, which is *first of its kind in our country*. Presently operational and providing real-time services to Canal operations for Khadakwasla

15.0 Instrumental in securing the Phase-II of UNDP project "Microprocessor Application Engineering Programme (MAEP)" and also successful coordination of the visit of International experts and planning of Indian fellows abroad

16.0 As technical coordinator of MAEP centres successfully involved in the process of development of products and transfer of technology to the industry of 10 products in six years
17.0 As a UNDP fellow worked at University of Bremen, Germany and successfully carried-out a comparative study of the performance of parallel machine using transputers
18.0 As chief Investigator instrumental in bringing out a product Multilingual e-Learning framework "e-Sikshak" and offering a course on "Core competency in Software process Management" and "Certificate Course on Cyber Security (CCCS)".
19.0 As chief Investigator instrumental in bringing out a product "EnSafe" as part of Design and Development of Transparent Security Solution for securing Networks & Systems for TCP and UDP Applications on Windows & Linux environments and also established e-Security Concept Lab.
20.0 Conducted Two National Seminars on e-Learning and e-Learning Technologies (ELELTECH India 2001 & 2005) and one International Seminar "ELELTECH India ASEAN Seminar for ASEAN Countires" during 2006.
21.0 As a panelist involved in panel discussion: Information Technology Sourcing Strategies and Global Challenges and Chaired a Session on System Evaluation in a Conference on Information Science, Technology and Management (CISTM)- Leadership Challenges in the Information Age during July 16-18, 2007 at Osmania University Campus, Hyderabad organized by CII and Osmania University.
22.0 Successful award of Ph.D in the area of Analog circuit fault diagnosis from Indian Institute of Technology, Delhi and publication of the work in three international journals [IEEE Transactions on Measurements and Instrumentation; Journal for Electronic Testing: Theory and Applications(JETTA); Journal of Circuits Systems and Computers(JCSC)]

Organizing National level Seminars/ Workshops

Papers published/ Presented
More than 30 National and International Journal/ Conferences/ workshops/ seminars papers published and presented
Invited talks

Professional bodies association:
Senior Member IEEE
Member - ACM
Fellow Institute of Electronics & Telecommunication Engineering
Member Computer Society of India
Member – Confederation of Indian Industry

Member in committees
- PRSG Member for the project titled "Pollution Monitoring and Evaluation System Using Sensor-based Wireless Mesh Networks for the Protection of Public Spaces", of IIM, Kolkata under National Ubiquitous Computing Research Initiatives.
- PRSG member for the project of e-Security -- DoEACC, Ghorakpur
- PRSG Member for the Three e-Learning Projects of Department of Information Technology, Government of India.
- Member in Board of Studies for Electronics & Communication for Kakatiya University

- Member in Board of studies for Computer Science, Engineering college, JNTU, Kakinada
- Member in Board of Studies for School of Information Technology, JNTU, Hyderabad
- Member in Board of studies of Nanayya University, MCA course
- Advisory Committee Member in G. Narayanamma Institute of Technology & Science for Women, Hyderabad for their CSE/IT Department and give recommendations on Industry Institute Interaction etc
- Member in Board of Governors of JNTU College of Engineering, Hyderabad
- Advisory Committee Member for the project "Supporting the Human Resource Development of Software Industry for Vietnam" – Department of Information Technology, Government of India.

Investigator of the following projects
- Development of a Quality Assurance Framework, quality metrics, and prototype tool for evaluation and comparison of e-learning applications and training the teachers in e-Learning"
- India Development Gateway (InDG) project – is a country led initiative that will target specific country needs in the domain of rural and social development. It will catalyze the use of the Information and Communications Technology (ICT) for collaboration and knowledge sharing among development stakeholders representing from Government, NGOs and Private Sectors. InDG an ambitious project catering to reach the unreached with a pro-poor and pro woman perspective and to launch development and promotion of information products and services in the local language in the chosen verticals: of Health, Education, Agriculture, Rural Energy and e-Governance.
- National Awareness Campaign on Information Security for the Information Security Education and Awareness (ISEA) Program.

Visits Abroad
- Selected as an UNDP fellow to Germany and USA over a period of 18 weeks. As part of this visited Bremen University, Germany, University of Wyoming, University of Kingston, USA; and CH2M Hill Consultants. Trained in the area of parallel software development to test the performance of Transputer based Parallel Computer, MATLAB, Reduced Instruction Set Computer (RISC) Architectures, Automation Concepts.
- Participated in the design of networking of computer systems for the Hyderpur water treatment plant automation as part of pre-design team member at M/s Black and Veatch International Inc., USA in the year 1995. This is an USAID project. Involved in the preparation of pre-design document for the project.
- On invitation from the University of Udine, Italy visited abroad to Spain and Italy to participate in the first International Workshop on Automated Specification and Verification of Websites (WWV'05), held in Valencia (Spain) as part of 'ICT for India- EU Cross Cultural Dissemination' Project. As a member of the programme committee chaired a session on "Web Accessibility Evaluation".
- On invitation from Department of Information Technology, Government of India, attended the 1st meeting of Joint Working Group (JWG) for the Bilateral Cooperation between India and Sri Lanka in ICT Sector. The JWG was held at Colombo from 17th to 19th October 2006.
- On invitation from the University of Udine, Italy visited abroad to participate in the workshop on 'EU-India ECCP Programme on Information and Communication Technology for Cross Cultural Dissemination from 11th December to 19th December

and delivered a talk on e-Learning – A Distributed and Equitable Learning Opportunity" during their final conference on Indo-EU Cross Cultural Dissemination.

- Represented India as part of Asian Forum for IT (AFIT 2007) in Tokyo, Japan and made presentations