

PROF. SARVESWARA RAO ENDOWMENT FOR ACTION RESEARCH
(A BSRVR foundation – Gayatri Vidya Parishad Initiative)

The Endowment:

Prof. Bhavaraju Sarveswara Rao, (1915-2010), Professor of Economics and former Principal, Andhra University College of Arts, Commerce and Law and former Vice Chancellor of Acharya Nagarjuna University had been a pioneer of action research, having taken it as his prime research tool, way before others took it up in India and other parts of the world. Inter-disciplinary Action Research in the realms of Social Sciences, Sciences, Engineering, Technology and Agriculture addressing the societal issues was Prof. Sarveswara Rao's forte.* The family of Late Prof Sarveswara Rao, along with his admirers celebrated his birth centenary during Nov - Dec 2015. The Bhavaraju family deems it their duty to take up some activity to perpetuate this form of research, which unfortunately is not in regular practice.

"Prof. Sarveswara Rao Endowment for Action Research" is set up by the family of late Prof. Sarveswara Rao, through their registered non-profit organization- Prof Bhavaraju Sarveswara Rao and Venkata Ratnam foundation(BSRVR Foundation), with the help of Gayatri Vidya Parishad (GVP), a premier nonprofit educational society, Visakhapatnam. Prof Sarveswara Rao was the President of Gayatri Vidya Parishad during its 1989 - 2004. He firmly believed that in action research, investigations and policy recommendations must be firmly rooted in relevance to social betterment. He did not believe in armchair theorizing. Some of the action research projects he spearheaded, covered, for example, "Socio economic conditions of slum dwellers in Visakhapatnam", and "Development of human resources in rural areas", "vision testing of slum children". A list of Research projects taken up by him can be seen elsewhere in the web site, some of them are examples of the action research projects taken up by him.**

Prof.BhavarajuSarveswara Rao and Venkata Ratnam Foundation, is a registered non-profit society, Visakhapatnam, India (Registered under Societies Act 35 of 2001, Society NO.153 of 2010), proposes an award a research grant of INR.100,000/- to a selected Action research proposal. (web site <www.bhavarajufoundation.org>; e mail: bsrvr2010@gmail.com).

* Annexure 1: Address by Prof. Sarveswara Rao exhorting the faculty of University to take up Action research.

** Some Action research projects taken up by Prof Sarveswara Rao

Action Research:

Action Research is used in real situations, rather than in contrived, experimental studies. The primary focus of Action Research is on solving real life problems. It could also be used by any researcher for preliminary or pilot research, especially when the situation is too ambiguous to formulate a precise research question. In accordance with its principles, it is mostly chosen when circumstances require flexibility, the involvement of multiple disciplines and people in the research, or change must take place quickly or holistically.

A paradigm of Praxis is seen where the main affinities of Action Research lie. Praxis, a term used by Aristotle, is the art of acting upon the conditions one faces in order to change them. It deals with the disciplines and activities predominant in the ethical, socio cultural and political lives of people.

Aristotle contrasted this with Theoria - those sciences and activities that are concerned with knowing for knowledge sake. The knowledge is derived from practice, and practice informed by knowledge. Action Researchers may not take up the notion of researcher neutrality; most active researcher is often one who has most at stake in resolving a problematic situation. Action Research takes up a holistic approach to problem solving in contrast to general research that takes up single method for collecting and analyzing data. It takes several different research tools to be used as the project is conducted. Often, Government or a local body or a committee administering the research fund is known to identify a specific issue or a problem and call for various researchers to send in proposals and may choose a multi disciplinary approach. It could also be that a particular solution to a problem be proposed and researchers may be asked to work on these. At times, the allocations of grants could be identified for a particular facet of an issue and stagger allocation of grants annually for different facets of the same problem at different times. Evaluation of an existing intervention for a problem may also be considered. The researcher shall keep in mind the feasibility, sustainability and capacity building also in his proposal.

Ethical Considerations:

Close attention to ethical considerations in the conduct of their work is essential since Action Research encompasses real-world circumstances and human problems and involves close and open communication among the people involved.

1. People participating in any part of research not be coerced into participating in research. This is especially relevant where researchers rely on captive audiences for their subjects - prisons, universities, patients, students and such.

2. Informed consent - Research participants must be fully informed about the procedures and risks involved in research and must give their consent to participate.
3. No risk of harm, physical and psychological to any participant as a result of their participation.
4. Protect the privacy of research participants.
5. Confidentiality and Anonymity is assured that identifying information will not be made available to anyone who is not directly involved in the study.
6. Equality of gender, region, community, religion and any other bias shall not be entertained in the research work, unless the issue itself calls for such.
7. Institutional review board may certify the proposal, where possible.
8. If a team is organizing a research, they shall:
 - a. Make sure that the relevant persons, committees and authorities have been consulted, and that the principles guiding the work are accepted in advance by all. Decisions made about the direction of the research and the probable outcomes are collective
 - b. All participants must be allowed to influence the work, and the wishes of those who do not wish to participate must be respected. The development of the work must remain visible and open to suggestions from others.
 - c. Permission must be obtained before making observations or examining documents produced for other purposes.
 - d. Descriptions of others' work and points of view must be negotiated with those concerned before being published.
 - e. Researchers are explicit about the nature of the research process from the beginning, including all personal biases and interests.
 - f. There is equal access to information generated by the process for all participants.
 - g. The outside researcher and the initial design team must create a process that maximizes the opportunities for involvement of all participants.

The Grant: The total amount of research grant is INR 100,000/- payable in four installments upon satisfactory submission of periodic reports of progress and conclusion of the work, as per regulations. The grant may be enhanced later.

Regulations of the endowment:

1. The endowment shall be called "*Prof. Bhavaraju Sarveswara Rao Endowment Fund for Action Research*".
2. The funds are in the custody of the BSRVR foundation and the award is given on the recommendation of the committee constituted for the specific purpose.
3. The funds are lodged in a scheduled bank and annual interest drawn from the funds will be utilised for the purpose identified. The research grant is limited by the amount of annual interest accrued on the corpus and administrative expenditure. Any funds unutilised in any year, will be added to the principal of the endowment.
4. The funds of the endowment may be enriched by further additions to it.
5. The endowment may also accept donations for a specific cause as laid down by the donor, within the broad scope of the endowment and such funds are spent only for the purpose for which they are donated.
6. Donations may also be made to supplement the interest received in a year to support research.
7. The endowment shall be managed by the BSRVR Foundation and GVP and a selection committee is formed to select the awardee. Member(s) of the Family of Prof. Bhavaraju Sarveswara Rao (or their nominees) shall be co-opted into the selection committee.
8. The foundation shall lay down the rules and regulations of the *modus operandi* of the endowment, taking adequate care of publicity and the Selection committee shall look into eligibility, selection and award of the research grant, evaluation and monitoring the activity and other details for proper utilisation of the fund.
9. The funds of the endowment shall be utilised:
 - a. As a seed money for any Inter-disciplinary action research in the realms of Social Sciences, Sciences, Engineering, Technology and Agriculture addressing the societal issues approved by the Committee.
 - b. For organising a workshop / seminar / lecture on issues of social cause.
 - c. Any other purpose for which a donation is received, as laid down by the donor, subject to the broad principles of the endowment.

BSRVR Foundation shall oversee:

1. Plan and implement how to give wide publicity for the fund.
2. Identify and laydown the guide lines for the award of the research grant.
3. Call for projects which come under the broad principles of action research which have a societal impact.

4. The committee itself may identify a theme and call for projects on a theme.
5. Criteria for the grant in Installments depending on the progress.
6. Monitoring the progress of the work done. Call for frequent reports of the progress and assessment and sanction of grant in installments.
7. Send the applicants documents to the selection committee for it to make a decision of the award.
8. Obligations of the research worker to the Foundation in case of conflicts of interest.
9. Patent Rights, if involved shall rest with the BSRVR Foundation and the Principal worker.
10. Ethical issues: Institutional Ethical Committees: Obligations of the research worker.

Selection committee shall ensure*:**

1. Project submitted falls within the scope and broad principles of action research.
2. The outcome of the project is beneficial to the society, sustainable and feasible.
3. Methodology: Principle of action research considered.
4. Evaluation of results: Statistical methods/ Schedules / Procedures/ Periodic reports
5. Conclusions.
6. Budgetary proposals.
7. Ethical guidelines are taken care of.
8. Conflicts of interest are taken care of.
9. Any other consideration as deemed necessary.

*** Annexure 2: Members of the selection committee

Instructions to the awardee:

The awardee will be selected after a due process of announcement calling for proposals and the selection committee of the endowment vetting them.

1. The awardee shall be an Indian citizen, under 40 years of age as on 31st December of the year of the award and a *bona fide* member of an institutions or an NGO. Support of external agencies or other individuals may be taken as co-workers.
2. The award is limited to a period of one year and shall not exceed the amount sanctioned.

3. The awardee shall submit quarterly report of progress of work, expenditure and receipts; complete the work in one year and submit the final report within 6 months of completion of the project.
4. The amount of the award is disbursed once in 3 months (four installments), upon receipt of satisfactory periodic reports.
5. The amount of the award is not to be spent for purchase of equipment or upgrading the infrastructure and shall be spent only for expenses related to the research project.
6. Under exceptional circumstances, the project may be extended for one more year. This extension shall be based on a further submission of an extension of the project and approval of the selection committee and satisfactory progress / completion of the initial project.
7. The awardee shall maintain a log book of activity, obtain necessary ethical clearances, permissions, consents in case of human subjects being used for research and shall undertake any activity *within the permissible laws of the land*.
8. If the research work involves study of human or animal subjects, proper ethical clearances are to be obtained from the institutional ethics committee by the researcher.
9. The researchers shall express in the beginning, if there are any conflicts of interest.
10. The patent rights, if any shall rest with the BSRVR Foundation and the Principal research worker.
11. If under any circumstances, the researcher gives up and discontinues the project, such researcher shall refund the grant received, forfeits all rights with the project concerned and the foundation reserves the right to continue the work as its own project.
12. Plagiarism will be dealt with *as per the laws of the land* and the foundation is not accountable.
13. The Proposer shall attach the following declarations to the proposal and on award of the grant, submit the Bank account of the Institute or NGO to which the amount is sent. (No cash transactions).

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Declarations to be submitted by the researcher on receipt of the award:

1. Declaration by the Principal Researcher:

I, resident of, a proposer of a research project for consideration of the award of a grant, declare that I have read the conditions of the award and abide by them.

Date:

Place:

Signature
(Name in Full)

2. Declaration by the head of the Institution/ authorized signatory in case of NGO:

I,, authorized signatory of, Institute or NGO have no objection for the Researcher to utilize the facilities of the Institute/ organization for the research work proposed if the grant is awarded. The fund granted shall not be used to purchase equipment or upgrading the infrastructure of the institute / the society.

Date:

Place:

Signature with seal

The Application can be on a plain paper with the following details and *uploaded in to the web site*:

1. Name of the Principle Researcher:
 2. Date of birth:
 3. Designation/ Address for correspondence:
 4. E mail:
 5. Name of the Institution / NGO affiliated to:
 6. Address:
 7. Qualifications:
 8. Past Research experience if any: (Please submit supporting documents)
8. Names of two references:

- 1.
- 2.

Co Workers: Information of co-workers and their data shall be given as for the principal researcher (Items 1-8).

The Proposal shall consider the following details:

1. Justify its consideration as action research project.
 2. Current scenario and reasons for this proposal.
 3. Probable recommendations and outcome.
 4. How the recommendations benefit the society.
 5. Its feasibility, sustainability and how it can lead to capacity building.
 6. Statement of conflicts of interest.
 7. Any proposal for application for a patent.
1. The proposal shall include: Title of the Project, Subject key words, Objective Methodology, Results, Conclusion, Budgetary outlay and recommendations.

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*** Annexure 1: Copy of the address by Prof. Sarveswara Rao to the faculty of Andhra University:**

Action Research for Technology Upgradation in Rural Areas

A proposal for the consideration of University Teachers

Prof. B.SarveswaraRao,

Chairman, Institute of Development and Planning Studies, Visakhapatnam.

*** Address to a group of University teachers at a meeting held in the Andhra University on 11th November, 1988 the Vice-Chancellor in the Chair. It emphasizes inter-disciplinary approach in data collection and analysis, and in an important sense becomes significant learning process for the researchers and those who implement development programs.**

1. This is a proposal for Action Research for the consideration of teachers of the Andhra University. It is concerned with the application of scientific knowledge for improving the living conditions, welfare and quality of life of the rural population. The proposal is for the University to adopt a village or villages and adopt an integrated approach for technology transfer or up gradation in the various sectors of activity simultaneously, offering feasible and relevant technologies as packages to individual households and village communities. The major objective of the action research proposal is to bring about rapidly, upgradation of technologies employed by the rural households and rural communities in the production, consumption welfare and infrastructure as rapidly as possible.
2. Action Research is commonly understood as applied research activity which is problem-oriented, problem-solving at the micro-level and in which the concerned individual families or social groups, the research worker and the development agencies working in public and private sectors are all jointly involved. It aims at integrating development action and development analysis, so that a healthy and purposeful interaction is established among all the concerned groups as mentioned above. The target groups with their own as provide their inputs into the Action Research process taken up by those who plan and execute or assist in executing development projects, and those who critically look at the methodology and data base for project appraisal and analyze the outcome of intervention. Action Research is thus concerned with the diagnostic aspect of a problem, the importance of non-technical socio-cultural dimensions of the problem and cost effectiveness of intervention for solution of the problem. Naturally in the Indian context, Action Research is focused on the problems faced by the poor and deprived sections of the society, though not necessarily.

As Action Research is primarily concerned with the need-based problems of the people, particularly the poorer sections of the society, it also involves mobilizing the target groups for action as well as intellectuals for study and analysis and for providing technical assistance to the people. It is hoped that the interaction between the target groups and intellectuals will bring about a situation in which that right steps are taken for identifying problems, laying down priorities, securing the help of macro-level support systems (technical, financial and administrative systems) and optimal use of physical and human resources.

3. Technology may be defined giving either a narrow connotations or a broad connotation. A narrow definition and processes which have arisen from the application of human understanding and knowledge of matter and which serve to enhance human capabilities. This means that technology is understood basically as knowledge. A wider definition of technology would include social and cultural conditions that permit the use of objects, techniques and processed. As A. K. Sen said “Technology is not only about equipment and its operational characteristics, it is also about the social arrangements that permit productive processes to be carried out”. In any proposal for Action Research for technology upgradation, the broader view of technology is more relevant. As late Prof. Nayudamma once observed, “appropriate or alternative technology is at the heart of indigenous development process to increase the problem solving capacity of man to mitigate man’s misery; to remove or reduce poverty; to provide gainful employment; to meet his basic needs; to raise productivity; to improve the traditional tools and skills; to increases his social status and pride, and to live in harmony with his environment with a sense of values of human dignity”. Technology upgradation thus involves vital changes in instruments and methods as well as social organization in different sectors of activity; and also both at the family organization and the community levels.
4. From a practical point of view technologies may be classified as follows:
 - a. Technologies employed in the production and investment sectors (agriculture, fishing, dairy, cottage and small industries, artisans and other services, construction of houses, etc.)
 - b. Technologies employed in the consumption sector (preparation of foods for cooking fuel used, preservations of foods, storage of food grains and other food stocks, storage and use of water cooking methods, kitchen gardening, planting trees around the house, design of houses and materials for house construction. Design and materials for furniture and utensils making,etc.)
 - c. Technologies employed in ensuring family welfare (family planning, health, care of pregnant mothers, postnatal care, children’s education)

- d. Technologies employed in building community assets and promoting community activities (public health and sanitation, drainage, building schools and hospitals, cultural activities, etc.)

There are new and alternative technologies available in all these sectors. They have to be carefully evaluated from the point of view of economic facility and cultural relevance before they are recommended for adoption.

5. The proposed Action Research for technology upgradation in rural areas will involve the following tasks:
 - a. Assessing the possibilities for technology transfer upgradation in the different sectors as noted above.
 - b. Assessing the technology options and their feasibility taking into account the people's perceptions, their scheme of priorities and their resources.
 - c. Promoting adoption of the feasible and relevant technologies with the support of funding agencies and credit institutions.
 - d. Concurrent monitoring of the technology upgradation process; and
 - e. Evaluating the impact on the target groups and the society.
6. For the performance of such tasks and implementation of the projects, it is proposed that a few villages may be adopted by the University in the first instance. The choice of the villages may represent both categories of relatively developed and relatively back-ward villages.

The action part of the project will be carried out at two levels:

- i. At the level of family
 - ii. At the level of the target group or the entire village community.
- At the family level attention will be focused on designing a package of technologies covering the production/investment, consumption and welfare sectors on the basis of the family's needs and priorities. At the level of the target group or the village community attention will be focus on building community facilities or infrastructure needed.

The research part of the project will be carried out both at the village level and the University level.

7. Past experience relating to the design and implementation of anti-poverty programs are designed or oriented to individual beneficiaries and income generating schemes, mostly one individual beneficiary in a family and one income-generating scheme. The implementation of programs is also done by the bureaucracy which is not accountable to the target groups and which rarely is committed to the support of the poor. The approach is a narrow economic approach, very limited in scope and it ignores several important dimensions of the activity complex of the family. Little attention is paid to the interaction between the economic and socio-cultural factors, which influence the way the resources of the family (land, capital, skills and experience) are productively used, and

to the potential for raising the productivity through appropriate measures of technology upgradation and intervention. If rural families can adopt a package of relevant technologies in the different sectors referred to above, it will be the most effective and surest way of raising the productivity of the physical and human resources available to the families, their level of living and the quality of their life. The productivity of the family resources including the institutional credit available to the family will be measured in terms of output or benefit per unit of labor effort, land cultivated, capital outlay, consumption expenditure on food and other items, expenditure on housing, etc., and it can only rise through upgradation of technology. Examples of new and alternative technologies available are obviously the improved varieties of seed, fertilizer and agricultural implements, fodder grasses and fuel wood tree species, irrigation methods especially in dry areas, bio-gas production, generation of wind energy, materials for house construction, smokeless chulas, methods of preparing and cooking food materials for raising the nutritional value and efficiency, measures for reducing the incidence of illness and morbidity especially in the case of women and children, first aid in medical treatment, etc., . These new and alternative technologies, if they are particularly offered and adopted as a package by the rural families in their production and consumption activities, they will make an enormous contribution to the efficient use of their limited resources and improving their levels of living. In fact it cannot be gainsaid that this is a most effective way of raising the incomes and living standards of the rural people. There is an urgent need for the establishment of appropriate technology demonstration and promotion cells in as many villages as possible. Voluntary agencies can serve as excellent agencies for this purpose.

8. One of the major problems faced by workers in the field of rural development is the wide gap to be filled between the available new and alternative technologies and their actual use by the rural people. There are several reasons for the inability of rural people, especially the poorer sections, to make use of the new and alternative technologies. The most important of them are lack of awareness, inertia, excessive attachment to conventional modes of production and habits of work and living, high cost of technology in relation to family assets and incomes, inadequate access to institutional credit and lack of opportunities to acquire minimum skills to adopt new technologies.
9. There is a vital and important role for the University teachers in this matter. They can make a most useful contribution in three areas: (1) in studying and analyzing the constraints for low level of adoption of new and alternative technologies in the various sectors and suggesting measures to overcome the

constraints; (2) in the matter of designing new and appropriate techniques and processes or in adapting the existing ones; and (3) in the management of technical change and transfer of technology. It will be necessary to adopt an inter-disciplinary and holistic approach to the problem in order to bring out the complexity of interacting variables of the techno-socio-economic system, and the weak and strong points of the linkages, and in order to establish a viable model for technology transfer or upgradation, the model also implying a model of decentralized decision making and participatory management. A project of this kind will also involve meaningful exposure of the University teachers to social reality at the ground level, and to real life situations in the application of scientific knowledge. The performance of the various tasks of the project will also provide a challenging opportunity for the scientists and scholars of the University to work with the people, the poor people in particular, and demonstrate to them in a very practical way that science and technology would improve their working and living conditions, increase the economic returns to their labor and investments, and enhance their pride and prestige.

**** Annexure 2:**

Selection committee:

1. Dr. Sakuntala Narasimhan:

A senior journalist-columnist-author-consumer activist and academic resource person, based in Bangalore. She is a B.A. (Hons) degree from Andhra University, and enrolled for doctoral research in economics under Professor Sarveswara Rao, with a UGC fellowship (1960-62) but had to switch to sociology and obtained a doctorate in women's studies in 1996. She has a doctorate in classical music too, for her thesis on a comparative study of Carnatic and Hindustani music systems. She has published over 3,000 articles in leading papers, authored 11 books, won 3 prestigious national awards in journalism including the Media Foundation's Chameli Devi award for Outstanding Woman Journalist (1983) and the PUCL award for Human Rights journalism (2000) and also a government of India national award for consumer protection (1994). As an academic she has presented papers at international conferences at Boston, Barbados, Oxford, Manila, Sydney, Oslo, Bali, Bangkok and Kampala (Uganda) and also reported on the UN World conference on Women in China (1995), the World Summit on Sustainable Development in South Africa (2002) and the UN conference on Beijing + Five, at New York (2000). She was also twice chosen a fellow of the Salzburg Seminar (sessions 353 and 377). Her writings have been translated into Italian, Spanish, Tamil, Hindi, Kannada, Telugu and Malayalam. She taught journalism at the post graduate level at Mumbai and Bangalore. She lived in, and lectured in Japan, France, England, USA (Princeton) and Italy. The National

Foundation for India awarded her a senior fellowship to tour the north east and write a series of articles (1998) while the ministry of culture of the government of India awarded her a senior fellowship for research on music (1998-2000) which resulted in a book. She also taught in the US on a Fulbright assignment in 1990, and has served on the international jury for the award of an international prize in feminist economics. As a musician she has 10 gold medals, two lifetime achievement awards and 58 years of broadcasting to her credit. ICCR sent her as adjudicator to the Kenya International Music Festival at Nairobi (1985) and also to Australia on a Good will delegation (1960).

2. Prof. V.V. Bhanoji Rao:

Adjunct Professor, Lee Kuan Yew School of Public Policy, National University of Singapore, and Governing Board Member, GITAM, *Visakhapatnam* and IFHE, Hyderabad. He has an MA from AU and Ph.D. from the University of Singapore. He taught at Singapore for three decades and worked as an Economist at the World Bank (Washington and Jakarta). Prior to going to Singapore in 1967, he worked in India at TISCO, Census of India, A.U., etc.

He was author/co-author and editor/co-editor of 18 books and 14 monographs, author/co-author of 62 papers in refereed journals, and contributed over 100 columns in print media in India and Singapore. His consultancy clientele included Singapore Airlines, IBM-Singapore, IDRC –Canada, UNESCAP, the World Bank and most recently ADB, Manila. His latest book (*Human Evolution, Economic Progress and Evolutionary Failure*), Routledge, (London and New York), 2017.

3. Prof J. B. G. Tilak:

Former Prof & HOD of Educational Finance and Vice Chancellor i/c at National University of Educational Planning and Administration, New Delhi has specialized in Economics of Education, Educational Planning and Financing M.A. (Economics) Gold medalist from Andhra University and Ph.D. (Economics of Education) from the Delhi School of Economics; was on the research and teaching faculty of University of Delhi, Indian Institute of Education, University of Virginia and the Hiroshima University (Japan); was also on the research staff of the World Bank. He is also a Visiting Professor in Economics, Sri Sathya Sai University; Hony. Visiting Fellow at Centre for International Cooperation in Education, Hiroshima University; and has authored/edited dozen books and about 300 research papers in the area of economics of education and development studies, published in reputed journals. The honours and awards Prof Tilak received include the prestigious Swami Pranavananda Saraswati National Award of the UGC in Education for his outstanding scholarly research (1999), Dr. Malcolm Adiseshiah Award for distinguished research

contributions to development studies (2003) and Inspirational Teacher of the Year Global Education Award 2012. Among many other honours, he had a privilege of delivering a keynote address to a meeting of the Noble laureates in Barcelona in 2005. Dr Tilak is also a member of several official committees on education constituted by the Government of India and various state governments, besides some international bodies. He is the Editor of Journal of Educational Planning and Administration_ and is on the editorial board of several professional journals. Professor Tilak served as Vice-President, and as President of the Comparative Education Society of India (2010-12). Prof. Tilak travelled widely, participated in several seminars/conferences and lectured in several universities and institutions of higher education in India and abroad.

4. Prof K. C. Reddy:

An MA PhD in Economics from Andhra University is a former Prof. of Economics, Chairman Faculty of Arts and Member of Academic Senate and EC of The Andhra University; former Chairman, The A P State Council for Higher Education and Vice Chairman for Rajeev YuvaKiranalu, a project for employment creation of Andhra Pradesh.

His publications include India's Engineering Exports, Financing of small scale industries (Editor) Impact of Bailadilla Iron ore project (Co Author), The New International Economic Order (Co Editor) and Export Financing in India (Co Author).

5. Dr. Rajita R. Bhavaraju:

Rajita Bhavaraju is Deputy Director of the NJ Medical School Global Tuberculosis Institute, at Rutgers University, and Adjunct instructor in the Department of Health Education and Behavioral Science at the Rutgers School of Public Health. She is a Master of Public Health (MPH) in Family Health Science (1997) and PhD in Public Health Education and Behavioral Science (2017).

Rajita earlier held positions at the International Union against Tuberculosis and Lung Disease (IUATLD) as Director of Curriculum and Assessment and worked in the mental health field early in her career. She was the *Chair for IUATLD's Coordinating Committee for Scientific Activities; Chair, Staffing and Training Sub-Workgroup, 2001-2004*, Centers for Disease Control and Prevention & National TB Controllers Association Contact Investigation Recommendations Workgroup; *Consultant*, World Health Organization Program Review Team for Internationally Supported TB Control Programs in the Russian Federation, July 2006. Rajita was a member of World Lung Foundation (2014-2015) and IUATLD Board of Directors (2010-2014) and is Member-at-Large for The Union-North

America Region Council (2017-2019). Past positions also include Secretary (2001-2003) and Member-at-large (2000) for the NJ Public Health Association. She has received honors from Alpha Chi Chapter of Alpha Epsilon Lambda Graduate & Professional Student Honor Society, 2015, Delta Omega National Honor Society for Public Health, 2002 (alumnus induction), Alpha Kappa Delta Sociology Honor Society, 1994 and Mu Upsilon Sigma Music Honor Society, 1992.

6. Dr. Naresh C. Bhavaraju:

Naresh C. Bhavaraju is a Director of Research and Development at Dexcom, Inc., a medical device company in San Diego, CA, USA, that manufactures continuous glucose monitoring systems for people with Type 1 and Type II Diabetes. He also serves on the Medical Device Committee with Biocom (San Diego), a Life Science Association in California, and is a Senior Member of Institute of Electrical and Electronics Engineers (IEEE).

Naresh has over 15 years of experience in the medical device industry with expertise in the area of technology development, regulatory strategy, clinical validation and commercialization. He has published many papers and has more than 25 issued patents and more than 50 pending patent applications in the fields of Cardiology, Neurology, Wound Care, and chronic disease monitoring. Naresh has a Bachelors (Andhra University) and Masters (ITT-Delhi) in Electrical Engineering and a PhD in Biomedical Engineering from The University of Texas at Austin.

His interests and passions include developing cost-effective technologies that make a difference in peoples' lives particularly those that reduce healthcare costs of chronic diseases and impact on quality of life. He has a wealth of experience in the area of practical applications and value of technologies in the field of healthcare. His earlier works included deep brain stimulation in treatment of epilepsy and electrophysiological interventions in cardiac abnormalities and wound healing.

***** Certain Action research Projects taken up by Late Prof Sarveswara Rao:**

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