Brief Bio-Data of Dr. Dattatreya M. Kadam

I, **Dr. Dattatreya M. Kadam,** Principal Scientist (APE) at ICAR-CIRCOT, Mumbai completed B. Tech (AgrilEngg) from CAE Raichur (UAS, Dharward), M. Tech (PAS) from PAU, Ludhiana and Ph. D (AgrilEngg) from IARI, New Delhi and BOYSCAST Fellow/PDF from Iowa State University, Ames, USA. I served about 14 years at ICAR-CIPHET, Ludhiana. I am actively involved in research and development activities of Agricultural/Food Process Engineering andpublished more than **36 research papers in National and Internationally reputed journals**, 2 booklets, 19 book chapters, 1 edited book, 7 bulletins, 4 extension leaflets, 13 popular articles and filled 2 patents, gave many radio talks, attended many national and international conferences. Apart from this, I have received many awards such as Young Engineer, Young Scientist, Distinguished Service Certificate Award, Best Poster Award, International Trainees Award/ fellowship to train researchers from African Countries, BOYSCAST Fellow, Fellow, IEI, Fellow EAES.I worked/ is working on design and development of agro-processing based machines/equipment's, tools and value added food products including **cutting edge technology**such as Nano-Technology, Biodegradable Nano-bio-polymer, and nano-bio –composite, Biosensors etc.

Design and development: a) CIPHET Banana-comb/hand cutter, b) Dryer having unique design of plenum chamber, c) Belt dryer, d) Integrated solar dryer, e) Greenhouse dryer, f) Roller based chapatti rolling machine, g) Flour mixer, h) Composite mini dhal mill, i) Mobile agro processing unit, j) Maize degermer k) Developed multipurpose dischargesystem in silo for 1) trapping insects 2) fumigation 3) drying 4) aeration and 5) controlled discharge of grains from silo.

New Concepts and Processes: Developed osmotic dehydrated Banana-figs and Pineapple candies, value added products from whole maize, maize grit, germ and powder. The process for production offoam mat dried powders from tomato, kinnow, mango, and pineappleare developed and optimized including foaming agents, its concentration level and drying air temperature. Also, process for development of tamarind pulp powder and instant tamarind beverage dry mix was developed. Developed biodegradable biopolymers from corn zein protein, whey protein isolate and soy protein isolate with or without nano-functionalized nanoparticles (TiO_2@@SiO_2) embedded in it.Low cost greenhouse technology for drying onion slices was developed. Cost effective and feasible greenhouse structures construction technology developed was adopted by farmers of cold desert areas. Prepared many workable project profiles those in details including BCR, financial statements, machinery required, manufactures addresses etc to encourage upcoming entrepreneurs and youths to establish food processing industries.I was one of team member providing **consultancy services** to: 1) SFAC, New Delhi (3 Nos), 2) Entrepreneurs (4Nos) for setting-up a venture level food **processing unit** and 3) provided expert advice to **NHB** in **development of container for trucks and horticultural train**, through Indian Railways.

I was instrumental in establishment of Nationally Important "**Post-Harvest Machinery and Equipment (PHME) Testing Centre**" at ICAR-CIPHET, Ludhiana and Testing Industrial

Food Processing Machines and release test report. Handled/handling BPD, ABI projects at ICAR-CIPHET, Ludhiana.