Curriculum Vitae

Prof (Mrs) Aruna Kumari Mishra
Retired Prof of Microbiology
P.G dept of Botany, Utkal University
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1(A)Current Position ;

Executive Director
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1(C: Aca demic Career :

Qualification	Year	University /Board	Class	Distinction
HSC	1958	Board of Secondary education	1st class	Merit Scholar
ISc	1960	Utkal University	1st Class	Merit Scholar
BSC (Hons)	1962	Utkal University	1st Class distinction	Merit Scholar
Msc (botany)	1964	Utkal University	1st Class distinction	Gold Medalist
Phd	1977	Utkal University		

Post Doctoral Fellowship – Awarded Commonwealth Academic Staff Fellowship for a period of 1 year and worked with DR PS Nutman FRS at Rothamstead Experimental Station ,UK

Service Career

Lecturer In Botany	Ravenshaw College,Govt of Orissa	1966- 1972
Lecturer ,PG dept Botany	Utkal University ,Orissa	1972 – 1985
Professor ,Microbiology	Utkal University,Orissa	1985- 2003
Professor & Head of Dept In PG dept of Botany	Utkal University ,Orissa	1994-1996
Professor & Warden , PG Hostels	Utkal University	1998- 1999
Director, School of Life Sciences	Utkal University	1999- 2003
Director,Distant & Continous Education	Utkal University	2000-2002
Chairman,PG Council 1year	Utkal University	2000- 2001
Member of Syndicate	Utkal University	2000- 2002
Dean,Faculty of Science	utkal University	2000 -2003

Date of superannuation :31.05.03

Visiting Professor & consultant scientist	Utkal University	2004 ~2006
Founder/Executive Director	AMIFEM Centre of applied Microbiology & Bio technology	2007 ~continuing

Specialisation :Microbiology, Microbial Biotechnology & environmental biotechnology

Selected Trainings Highlight

PhD Topic : Physiology of Host Parasite relationship in obligate plant parasite

~1979 ~80 :Post Doctoral Research Electron Microscopic studies on the basis of legume rhizobium symbiosis. Worked with DR PS Nutman FRS, Rothamstead Experimental Station ,UK as commonwealth Post Doctoral Fellow.Special training on Electron Microscopy at Rothamstead Experimental Station

~1995(3months) – Visiting Professor to Dept of Biotechnology , Nottingham University .UK. Worked with Professor E.C Cocking FRS on scope of improvement of Nitrogen fixation in Rice Plants with genetically compatible Rhizobium Strain co inoculated in Agrobacterium rhizobiums. Sponsored by British Council

Research Achievements :

I) Developed improved strain of rhizobium , which is being used as Biofertiliser by Regional biofertilizer Development centre Govt of India for improving growth and productivity of Mung Bean under water stress for field application

2) Developing technology for reclamation of Minewaste area, attenuation of hexavalent chromium from soil and water through Biotechnological application of microbes using bioremedial technique. Technique currently accepted and endorsed by Dept of Environmentand Forestry, Govt of India for field application . Corporates as TISCO & Mahanadi Coal fields have shown interest to use this technique for reclaiming their mine overburdened land

3) Developed technology for successful utilization of Fly ash , a major pollutant results from coal burning in thermal power stations as a plant growth substarte through microbial amelioration

4) Pioneer in enhancing stress tolerance capacity of seedlings and clonally propagating plant stocks of Pongamia pinnata a biodiesel plan species grown in stress soil condition and fly ash suitability for undertaking large scale plantation ,using beneficial microbes like PSM PGPR and Mychorrizhae

5) Development of MMIR(Mixed Microbial Innoculation for Reclamation) suitable for Pig Iron and Chromite Mine Waste area which has been successfully tested in fields

Members of Learned societies

i) Life member & fellow of National Environmental science academy
ii) Founder Life Member & ex president of Orissa Botanical Society (since 19 74)
iii) Life member of Association of Microbiology of India and President of the local chapter of the society since 2001
iv) Life member of Indian Science Congress Association
v) Life member Orissa Environmental society

ii(a)Books Published : 4

i) Handbook of Forestry
ii) A treatise on Indian Forestry
iii) Problem of Wasteland Development & role of microbes
iv) Biotechnology – Microbes & Man

Seminars conducted :17 no's

Ii(B) Academic Guidance & Research Publications:

i) Phd Thesis :21 (18 completed, 3 ongoing)
ii) Mphil Thesis :29
iii) MSc Dissertation :28
iv)Full Papers published in national & International journals :67
v)Papers presented in International seminars :25
vi)No of Papers presented in National seminars in total : 138

iii(A)Major Research projects handled :

1) Improvement of Nitrogen Fixation in Crop legumes under environment stress :sponsored by University Grants commission (1983-1986)
2) Study on Growth and Nitrogen fixation in legumes grown in Iron & chromite mine waste soil: Sponsored by Dept Of environment& & forest, Govt. Of India(1988- 1992)
3) Study on seed borne microflora of sal (shorea robusta) and attempt on importance of seed viability :(1985- 87)-sponsored by dept of Science & Technology, Govt. of Orissa
4) Study on Microbial diversity of Bhitakanika Mangroves
Sponsored by Dept of Environment & forest ,Govt. Of India(1992~1995)
5) Attempt on reclamation of Iron and chromite minewaste soil through biotechnologIcal Application of microbes.
Sponsored :Dept of Environment & Forest, Govt. Of India
(1998 – 2002)
6) Utilisation of Fly ash as plant growth substrate through Microbial ameliorates :Sponsored NALCO, (1999-2002)
7) Attenuation of hexavalent chromium toxicity from chromite mine effluent water in sukinda chromite mine area of Orissa through Biomediation
Sponsored :Indian Bureau of Mines(2004~2006) conducted in Utkal university
8) EIA sponsored study on Impact of Mining on Soil & Water quality in Joda Badbil area of Keonjhar District, Orissa – One year study 2007.
Sponsored by Action Aid India conducted through AMIFEM- CAMB

iv) Awards & recognition :

2009 : A prestigious award of **Leading Scientist of the World – 2009**, Sponsored and Administered by the International Biographical Centre, Cambridge, England on dated 28th August 2009.

2009 : **International Gold Star Award and Certificate of Excellence - 2009** awarded by Indo Thai Friendship Society on 13th November at Bangkok.

2009 : **Invitation for Inclusion of Biographic in Learned India – 2009** by Breakthrough Publications Pvt. Ltd., New Delhi, India.

2008 : Rajiv Gandhi excellence award for significant contribution to the field of science and Technology by Indian International Friendship society

2007 :Best Citizen of India by International Publishing House , India

2006 :Shiksha Ratna Award by India International Society for significant contribution to field of science education

2004 : Scientist of the year Award by Orissa Botanical Society for outstanding contribution to plan sciences

2003 :Felicitation by Association of Microbiologists of India for contribution To the field of Microbiology

2002 – Felicitated by Association of Botanists of Ravenshaw university for contribution to science

2002 :Felicitation by Old students Association of Botany, Orissa for contribution to Plan sciences

2000 : Felicitatedby Osmania University ,Hyderabad in International Conference of Fungal biotechnology for contribution to study in Fungal biotechnology

1995 :Nominated fellow of National Environmental Science Academy ,India

1994 :Awarded Scientist of the year Award from National Environmental science Academy,India

About AMIFEM :

Abhilasha Memorial Institute for Forest and Environment management is a non profit making registered Institution which was established for promoting activities and creating awareness for conservation of dwindling forests and depleting environment in India. With a view to expanding its activity through promotion of fundamental research on the Forest and Environment management, AMIFEM has established the centre for applied microbiology and biotechnology (AMIFEM) se up in January 2007 a well equipped laboratory to promote R& D activities with mandates for conservation of Forests and environment in general with particular attention to the state of Orissa.

AMIFEM CAMB is actively engaged in undertaking research and imparting training to students at MSc and PhD levels which will be helpful in disseminating knowledge for solving environmental problems at the grassroots level. Within the 2 years of establishment AMMIFEM CAMB has been able to create a niche in the academic field by attracting students to undertake training. Currently four research scholars are working for phd work. Already 25 dissertations have been completed by students BSc and MSc biotechnology students. AMIFEM CAMB also imparts special training programs in Industrial microbiology, Microbial techniques, Immunology Environmental & Forest Biotechnology.