

# CURRICULUMVITAE

## **Dr. R. Lalfakzuala**

Assistant Professor  
Department of Botany  
School of Life Sciences  
Mizoram University  
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## **Personal Details:**

Sex : Male  
Father's Name : R. Hrangvunga  
Nationality : India  
Permanent Address: V-99 Bethlehem  
Aizawl-796001  
Mizoram, India

## **Educational Qualifications:**

Doctor of Philosophy (Ph.D.): NEHU, 2004  
Thesis: "Studies on Soil Microbiology of Groundnut (*Arachishypogaeaeal.*) Under Different Fertilizer Treatments"  
M.Sc. (Botany) : NEHU, 1998  
B.Sc. (Botany) : NEHU, 1996  
I.Sc. (+2) : NEHU, 1993  
High School : MBSE, 1989

## **Research Interest:**

- Exploration of Forest and Agriculture Microbial Diversity
- Assessment on Effects of Environmental Pollution on Microbial Activity

## **Awards & Distinctions:**

- DST Young Scientist Award, 2012

## **Professional Memberships:**

- Life Member, Mizo Academy of Science
- Member, Mizoram State Biodiversity Board

## **Details of Professional Trainings:**

<b>Sl. No.</b>	<b>Name of the Course/ Summer School</b>	<b>Place</b>	<b>Period</b>
1	Orientation Course (Information Technology)	ASC, NEHU, Shillong	23 <sup>rd</sup> March-22 <sup>nd</sup> April, 2009
2	Refresher Course (Environmental Science)	ASC, MZUAizawl	26 <sup>th</sup> July-17 <sup>th</sup> August, 2010
3	National Workshop on "Hands-on Training on Techniques Used in Biotechnological Research"	Dept. of Biotechnology NEHU, Shillong	28 <sup>th</sup> February – 12 <sup>th</sup> March, 2011
4	Refresher Course (Life Sciences)	ASC, MZUAizawl	8 <sup>th</sup> -28 <sup>th</sup> February, 2012
5	14 <sup>th</sup> Orientation Course on NSS Program Officer	TORC, Ramakrishna Mission Ashram, Kolkata	16 <sup>th</sup> – 22 <sup>nd</sup> February, 2014
6	Refresher Course (Bioinformatics in Life Sciences)	HRDC, MZUAizawl	22 <sup>nd</sup> March-11 <sup>th</sup> April, 2018

**Seminar/Symposia/Workshop Organized:**

Sl. No	Name of the Seminar/Conference/Symposia/Workshop	Sponsoring Agency	Place/Date
1	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India (BCUNRNEI)	DST-SERB and Mizoram University	30 - 31 March, 2017 Mizoram University
2	National Level Conference on "Mizoram Science Congress"	NEC, DST-SERB & MISTIC	13 - 14 October, 2016 Mizoram University
3	National Level Technical Workshop on Remote Sensing, GIS and GPS Application in Natural Resource Management	NEC, Shillong & Mizoram University	9 - 10 March, 2010 Mizoram University
4	Seminar on Ethno-botany of North East India: Past, Present and Future	NEBRC, Shillong	12 <sup>th</sup> April, 2000 Aizawl

**Research Projects:****National Projects:**

Sl. No.	Title of the Project	Funding Agency	Project Cost (In Lakhs)	Status
1	Scouting and Documentation of Traditional Knowledge Practice on Medicinal Plant of Pang & Bawm Tribes in Mizoram	NIF Ahmedabad	2.88	Completed
2.	Characterization of Phosphate Solubilizing Bacteria and Nitrogen Fixing Cyanobacteria from Paddy Fields of Mizoram for Development of Location Specific Biofertilizer	CSIR New Delhi	23.00	Completed
3.	Biochemical and Molecular Assessment of Phosphate Solubilizing Bacteria in Traditional Jhum Field of Mizoram	SERB-DST New Delhi	24.00	Completed

**Research & Teaching Experience:**

Research : 14 Years

Teaching : 12 Years (PG+Ph.D.)

**Total Number of Publications:**

i. Research Papers : 20

ii. Books/Book Chapters : 02

**Citation Details (as on 24.10.2018):**

	Google Scholar	Scopus
h index	3....	
i10 index	2....	
Total Citations	93....	
Cumulative Impact factor	4.640	

Link for Google Scholar: <https://scholar.google.com/citations?user=m0vrtawAAAAJ&hl=en>

Link for Research Gate or

Scopus: [https://www.researchgate.net/profile/R\\_Lalfakzuala2/stats/report/weekly/2018-10-28](https://www.researchgate.net/profile/R_Lalfakzuala2/stats/report/weekly/2018-10-28)

**Research Guidance:**

- i) Ph.D. Awarded : 01  
Registered : 05

Sl. No.	Name of Student	Research Topic
1.	LalmuankimiKhangte	16SrRNA Gene Profiling of Phosphorus Solubilizing Bacteria from Paddy Fields of Thenzawl
2.	C. Vanlalveni	Assessment of Nitrogen Fixing Cyanobacterial Diversity in Rice Fields of Mizoram using Ribosomal DNA marker (16SrRNA)
3.	LalrampaniChawngthu	Molecular and Biochemical Characterization of Phosphate Solubilizing Bacteria from Paddy Field of Mizoram
4.	RemruattuangaHnamte	Diversity of Phosphate Solubilizing Bacteria in Jhum Fallow Soil of Serchhip District, Mizoram
5.	P.C. Lalremruata	Diversity and Phytochemical assessment of some Lichens in Tropical and Sub Tropical Forests of Mizoram
6.	Zoliansanga	Phytochemical diversity and antibacterial activity of selected medicinal plants used by Khasi Tribes in Meghalaya

**List of Ph.D. Awarded:**

Sl. No.	Name of Student	Thesis Title
1.	LalmuankimiKhangte	16SrRNA Gene Profiling of Phosphorus Solubilizing Bacteria from Paddy Fields of Thenzawl

**Full Details of Published Papers:****A. Book Chapters**

1. **Lalfakzuala, R.**, Khongsai, M., Kayang, H. &Kharbuli, B. (2006). Ethno- Medicinal Plants and their uses in Western Mizoram. *Biodiversity of North East* Edited by B. Kharbuli, H. Kayang&D. Syiem. NEHU Publication. Pp 78-98.
2. Khongsai, M. &**Lalfakzuala, R.** (2006). Ethnobotanical Diversity of the Kuki Tribe of Moreh, Chandal District Manipur. *Biodiversity of North East* Edited by B. Kharbuli, H. Kayang& D. Syiem. NEHU Publication.Pp106-120.

**B. Research Papers**

- 1 RemruattuangaHnamte and **Lalfakzuala, R.** (2018). Phosphate solubilizing bacteria in traditional jhum field of Mizoram. *Science & Technology Journal*.Vol 6 (1): 39-44
- 2 C. Vanlalveni and **R. Lalfakzuala** (2018). Effect of seasonal variation on soil enzymes activity and fertility of soil in paddy fields of North Vanlaiphei. *Science Vision*. Vol. 18 (2): 70-73
- 3 C. Vanlalveni, KalyaniRajkumari, AayushiBiswas, ParthaPradipAdhikari, **Lalfakzuala, R.** and LalthazualaRokhuma (2018). Green synthesis of silver nanoparticles using *Nostoclinkia*and its antimicrobial activity: a novel biological approach. *BioNanoScience*. Published online: 13 April, 2018. BioNanoScience<https://doi.org/10.1007/s12668-018-0520-9>
- 4 AayushiBiswas, C. Vanlalveni, ParthaPradipAdhikari, **Lalfakzuala, R.** and LalthazualaRokhuma (2018). Green biosynthesis, characterization and antimicrobial activities of silver nanoparticles using fruit extract of *Solanumviarum*. *IET Nanobiotechnology*. Published online: 27 April, 2018. doi: 10.1049/iet-nbt.2018.0050 [www.ietdl.org](http://www.ietdl.org)
- 5 AayushiBiswas, LalrampaniChawngthu, C. Vanlalveni, RemruattuangaHnamte, **R. Lalfakzuala**, and LalthazualaRokhum (2018). Biosynthesis of Silver Nanoparticles Using *Selaginellabryopteris* Plant Extracts and Studies of Their Antimicrobialand Photocatalytic Activities. *Journal of Bionanoscience*. Vol.12: 227-232

- 6 LalmuankimiKhangte and **Lalfakzuala, R.** (2017). *In vitro* production of growth regulator (IAA) and phosphatase by phosphate solubilizing bacteria. *Science & Technology Journal*. Vol. 5 (1): 33-35
- 7 **Lalfakzuala, R.**, Lalrinmuana and Lalruatsanga, H. (2016). Studies on the Effect of Heavy Metals on Soil Fungi *Trichoderma* sp. *Science Vision* 16 (4): 166-170
- 8 **Lalfakzuala, R.**, Lalrinfeli, H. and Lalruatsanga, H. (2016). Studies on the Effect of ZnCl<sub>2</sub> on Phosphatase Enzyme Activity and Biomass of *Pseudomonas fluorescens* (ATCC 13525<sup>TM</sup>). *Science Vision* Vol.16 (4): 171-176
- 9 LalnuntluangaVanchhawng and **R. Lalfakzuala.** (2016). Studies on the Effect of *Mimosa pudica* L. Soil Fertility Level (Biological and Physico-Chemical Characteristics). *Imperial Journal of Interdisciplinary Research (IJIR)* Vol-2 (3): 338-344
- 10 **Lalfakzuala, R.**, C. Vanlalveni, LalmuankimiKhangte, Lalrampani, RemruattluangaHnamte and Lianthangpuii.(2015). Effects of Insecticides on Growth of Soil Fungi.*Asian Journal of Microbiology, Biotechnology & Environmental Sciences*. Vol. 17 (1):199-203
- 11 **Lalfakzuala, R.**, Lalrampani, C. Vanlalveni, LalmuankimiKhangte and RemruattluangaHnamte. (2014). Antibacterial activity of methanolic extracts of selected weeds against two phosphorous solubilizing bacteria. *Internatonal Journal of Current Microbiology and Applied Sciences* Vol. 3 (4): 1014-1019
- 12 John Zothanzama, Davy Lalriatlina, **R. Lalfakzuala**, ZodinpuiaPachau, P.C. Vanlalhluna and Esther Lalhmingliani. (2013). Assessment of air quality at the municipal waste dumping site in Aizawl, Mizoram. *Science Vision*. Vol. 13 (2): 64-69
- 13 LalthazualaRokhum, C. Vanlalveni and **R. Lalfakzuala** (2013). A simple, mild and selective iodination of alcohol. *International Journal of Emerging Technologies in Computational and Applied Sciences*. Vol.13 (169): 370-376
- 14 **Lalfakzuala, R.**, Kayang, H. and Dhkar, M.S. (2008). Effect of Fertilizer on Soil Microbial Component, Chemical Properties and Yield Under Leguminous Cultivation. *American-Eurasian Journal of Agriculture & Environmental Sciences*. 3 (3): 314-324
- 15 Vanlalhluna, P.C., Sahoo, U.K. and**Lalfakzuala,R.** (2008). Observation on growth performance of some multipurpose tree species in an Agroforestry system of Mizoram, North East India.*Journal of Nature Conservation*. 20(1): 53-61
- 16 **Lalfakzuala, R.**, Kayang, H. and Dkhar, M.S. (2006). Effect of Fertilizers on Soil Microbial Biomass Under Legumoinous Cultivation. *Asian Journal of Microbiology, Biotechnology & Environmental Sciences*. Vol.8 (3):623-631
- 17 **Lalfakzuala, R.**, Kayang, H. & Dkhar, M.S. (2006). Effect of Fertilizers Treatment on Soil Microbial Population Numbers and Enzyme Activities under Leguminous Cultivation.*Journal of Hill Research* 19(1): 13-23
- 18 Lalnunmawia, F., Jha, L.K. &**Lalfakzuala, R.** (2006). Performance of Three Bamboo Species Grown with *Glycine max* L. Merrill under Agroforestry System in Mizoram. *Society of Indian Foresters*. Vol. 41 No. 1-4
- 19 **Lalfakzuala, R.**,Lalramnghinglova, H. &Kayang, H. (2006). Ethno-botanical usages of Plants in Western Mizoram. *Indian Journal of Traditional Knowledge*. Vol. 6(3): 486-493
- 20 **Lalfakzuala, R.** &Lalramnghinglova, H. (2005). Soil Microbial Population and Biochemical Activity (Enzyme) in Agro-Ecosystem. *Science Vision*. Vol. 5 (2): 52-57

### C. Proceeding:

- 1 Lalrampani, **Lalfakzuala, R.** (2017). Diversity of Phosphate Solubilizing Bacteria Isolated from Paddy field of Mizoram. *Proceeding of the Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India*. Page 70-74.
- 2 RemruattluangaHnamte, Lalruatsanga, H., **Lalfakzuala, R.** (2017). Effect of Insecticide on Soil Fungal Diversity. *Proceeding of the Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India*. Page 81-84.
- 3 LalmuankimiKhangte, **Lalfakzuala, R.** (2017). Isolation of Phosphate Solubilizing Bacteria from Rice Rhizosphere of Thenzawl paddy field. *Proceeding of the Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India*. Page 118-127.

- 4 Vanlalveni, C., **Lalfakzuala, R.** (2017). Occurrence of Cyanobacteria in Local Rice Field of Mizoram. *Proceeding of the Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India*. Page 141-148.
- 5 RemruattluangaHnamte, **Lalfakzuala, R.** (2016). Diversity of Phosphate Solubilizing Bacteria in Traditional Jhum Field of Mizoram. *Proceeding of the Mizoram Science Congress*. Page 1-4.
- 6 LalmuankimiKhangte, **Lalfakzuala, R.** (2016). Isolation and Screening of Phosphate Solubilizing Bacteria from Rice Rhizosphere, Thenzawl. *Proceeding of the Mizoram Science Congress*. Page 5-8.
- 7 **Lalfakzuala, R.**, RemruattluangaHnamte, Lalremruata. (2016). Effect of Soil Amended with Decomposed Weeds on Microbial population and Growth Performance of Maize. *Proceeding of the Mizoram Science Congress*. Page 17-20.
- 8 Lalrampani, **Lalfakzuala, R.**, Khaipotha, C., Lalsangpui, F. (2016). Influence of Heavy Metals, pH and salt on Biomass and Phosphatase Activity of an Isolated PSB Strain. *Proceeding of the Mizoram Science Congress*. Page 69-74.
- 9 LalrammuanaSailo, **Lalfakzuala, R.** (2016). Studies on the Influence of Selected Weeds on Phosphorus Solubilizing Bacteria. *Proceeding of the Mizoram Science Congress*. Page 93-102
- 10 Lydia Vanlalruati and **Lalfakzuala, R.** (2016). Single Cell Protein Production (SCP) from Waste. *Proceeding of the Mizoram Science Congress*. Page 109-111.
- 11 Vanlalveni, C., **Lalfakzuala, R.** (2016). First Report on Heterocystous Nitrogen Fixing Cyanobacteria in Paddy Fields of North Vanlaiphai. *Proceeding of the Mizoram Science Congress*. Page 117-120.
- 12 Lalnunmawia, F., Angel Lalrindiki, J.C., **Lalfakzuala, R.** (2016). Floristic Composition, Seasonal Variation and Phenology of Weeds of Agriculture lands in Mizoram. *Proceeding of the Mizoram Science Congress*. Page 53-58.
- 13 Lalnunthari, John Zothanzama, **Lalfakzuala, R.** (2016). Colonization of ArbuscularMycorrhizal Fungi (AMF) from Jhum lands of Mizoram. *Proceeding of the Mizoram Science Congress*. Page 175-178.

**Papers presented at different symposiums:**

Sl. No.	Name of the Seminar/ Conference/Symposia/Work shop	Title/Topic	Sponsoring Agency	Place/Date
1	National Conference on "Mizoram Science Congress 2018"	Studies on Microbial Population and Physico-chemical Properties of Soil under <i>Flemingiamacrophylla</i> (Wild) Merr. Cultivation	MISTIC, Science & Technology, Govt. of Mizoram	PUC 4-5 October, 2018
2	National Conference on "Mizoram Science Congress 2018"	Effect of Salt and pH on the biomass and phosphatase activity of <i>Burkholderia</i> sp.	MISTIC, Science & Technology, Govt. of Mizoram	PUC 4-5 October, 2018
3	National Conference on "Mizoram Science Congress 2018"	Studies on the effect of xenobiotic on radial growth and dry weight biomass of <i>Trichoderma</i> sp.	MISTIC, Science & Technology, Govt. of Mizoram	PUC 4-5 October, 2018
4	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to	Diversity of Phosphate Solubilizing Bacteria Based on Their Biochemical Test from	DST-SERB and MZU	Mizoram University 30-31 March, 2017

	Northeast India (BCUNRNEI)	Paddy field of North Vanlaiphai		
5	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India (BCUNRNEI)	Isolation of Phosphate Solubilizing Bacteria from Rice Rhizosphere of Thenzawl paddy field	DST-SERB and MZU	Mizoram University 30-31 March, 2017
6	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India (BCUNRNEI)	Monthly Variation in Percent Root Colonization and Spore Number in Banana from Three Different Jhum Lands in Mizoram	DST-SERB and MZU	Mizoram University 30-31 March, 2017
7	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India (BCUNRNEI)	Effect of Insecticide on Soil Fungal Diversity	DST-SERB and MZU	Mizoram University 30-31 March, 2017
8	National Seminar on "Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India (BCUNRNEI)	Occurrence of Cyanobacteria in Local Rice Field of Mizoram	DST-SERB and MZU	Mizoram University 30-31 March, 2017
9	National Level Conference on "Mizoram Science Congress"	Single Cell Protein Production (SCP) from Waste	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
10	National Level Conference on "Mizoram Science Congress 2016"	Floristic Composition, Seasonal Variation and Phenology of Weeds of Agriculture lands in Mizoram	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
11	National Level Conference on "Mizoram Science Congress 2016"	First Report on Heterocystous Nitrogen Fixing Cyanobacteria in Paddy Fields of North Vanlaiphai	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
12	National Level Conference on "Mizoram Science Congress 2016"	Isolation and Screening of Phosphate Solubilizing Bacteria from Rice Rhizosphere, Thenzawl	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
13	National Level Conference on "Mizoram Science Congress 2016"	Studies on the Influence of Selected Weeds on Phosphorus Solubilizing Bacteria	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
14	National Level Conference on "Mizoram Science Congress 2016"	Studies on Single Cell Protein Production from Waste	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
15	National Level Conference on "Mizoram Science Congress 2016"	Effect of Soil Amended with Decomposed Weeds on Microbial population and Growth	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016

		Performance of Maize		
16	National Level Conference on "Mizoram Science Congress 2016"	Studies on the Effect of Zinc Chloride on Phosphatase Enzyme Activity and Biomass and <i>Aspergillusniger</i>	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
17	National Level Conference on "Mizoram Science Congress 2016"	Influence of Heavy Metals, pH and salt on Biomass and Phosphatase Activity of an Isolated PSB Strain	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
18	National Level Conference on "Mizoram Science Congress 2016"	Colonization of ArbuscularMycorrhizal Fungi (AMF) from Jhum lands of Mizoram	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
19	National Level Conference on "Mizoram Science Congress 2016"	Diversity of Phosphate Solubilizing Bacteria in Traditional Jhum Field of Mizoram	NEC, DST-SERB & MISTIC	Mizoram University 13-14 October, 2016
20	International Conference on Advances in Environmental Chemistry	Effect of Two Insecticides Monocrotophos and Endosulfan on Colony Size and Biomass of Some Soil Fungi	Dept. of Chemistry, MZU	Mizoram University 16-18 November, 2011
21	State Level Consultative Workshop on Access Right and Benefit Sharing from Biological Resources	Indigenous knowledge on the utilization of plant resources among Bawm tribal community of south Mizoram	MZU, ICIMOD &Environment, Forest& Climate change Dept. Gov't of Mizoram	22 <sup>nd</sup> – 23 <sup>rd</sup> May, 2006-06-19 Aizawl Mizoram

I hereby declare that all the information given above is true to the best of my knowledge.

Date: October, 2018

Place: Aizawl, Mizoram

R. Lalfakzuala