

# Dr.Rekha K

## Assistant Professor

<b>College Address</b> Department of Botany St. Mary's College, Thrissur INDIA, KERALA Post 680020  Ph: 9895045442(mobile) 91-487- 2333485(office)  E-mail: <a href="mailto:krekhamanoj@gmail.com">krekhamanoj@gmail.com</a>  <b>Educational Qualifications</b>  Exam passed :B.Sc  Subjects Taken : Botany (Main)  Year :1994  University/ Board : Mahatma Gandhi University, Kottayam  Exam passed : M.Sc  Subjects Taken : Botany  Year : 1997  University/ Board : Mahatma Gandhi University, Kottayam  Exam passed : UGC-NET	<b>Teaching Experience</b>															
	<table border="1"><thead><tr><th>Position</th><th>Date</th><th>Institution</th><th>Experience (years)</th><th>Location</th></tr></thead><tbody><tr><td>Assistant Professor</td><td>01-3-2006</td><td>St.Mary's College,</td><td>9 yrs</td><td>Thrissur</td></tr><tr><td>Lecturer</td><td>2001 to 2004</td><td>St.Teresa's College,</td><td>4 yrs</td><td>Ernakulam</td></tr></tbody></table>	Position	Date	Institution	Experience (years)	Location	Assistant Professor	01-3-2006	St.Mary's College,	9 yrs	Thrissur	Lecturer	2001 to 2004	St.Teresa's College,	4 yrs	Ernakulam
	Position	Date	Institution	Experience (years)	Location											
Assistant Professor	01-3-2006	St.Mary's College,	9 yrs	Thrissur												
Lecturer	2001 to 2004	St.Teresa's College,	4 yrs	Ernakulam												
<b>Areas of Research</b> Phycology, Phytochemistry, Cytology, Physiology  <b>Research Projects completed</b> UGC Minor Project- Impact of organic and inorganic fertilizers on the species dynamics of rhizosphere mycoflora of <i>Solanum melongena</i> L.  <b>Completed B.Sc research projects as Major advisor</b> <ul style="list-style-type: none"><li>• Impact of Streptomycin on the germination and early seedling growth of <i>Vigna radiata</i></li><li>• Allelopathic potential of <i>Alternanthera R.Br.</i> on seed germination and early seedling growth of <i>Vigna radiata</i>(L.)Wilezak</li><li>• Quantitative estimation of protein content in dry and germinated pulses</li><li>• Assessment of drinking water quality in Thrissur corporation</li><li>• Efficacy of some mechanical and chemical treatments on seed dormancy breakage of <i>Solanum melongena</i></li><li>• The individual and combined effect of Manganese and Zinc on germination, early seedling growth and pigment content of <i>Phaseolus aureus</i> Roxb.</li><li>• A study on the impact of Stannous chloride on the germination of <i>vigna sinensis</i> Savi.</li></ul>																

**Year : 2000**

**Additional Qualifications**

Ph.D

Subject Taken : Botany

Topic:

A study on the mineral nutrition and biochemistry of some fresh water phytoplankters

Year : 2004

University/ Board :

Mahatma Gandhi University

**Teaching Experience:**

13 yrs

**Research experience**

18 yrs

**Completed Research Project**

1

**Completed B.Sc research projects as Major advisor:**

12

**Completed M.Sc. Projects as Major advisor:**

9

**Publications:**

Research papers: 11

- Effect of vermicompost, Farmyard manure and chemical fertilizer on growth and yield of *Abelmoschus esculentus* L.
- Seed treatments to break seed dormancy in white *Abrus precatorius*
- Impact of organic and inorganic fertilizers on the species dynamics of rhizosphere mycoflora of *Solanum melongena*
- Phytochemical and histochemical characterization of leaves and petioles of *Artocarpus heterophyllus*
- Preliminary phytochemical screening and Histochemical localization of *Calyptocarpus biaristatus* –an unexplored plant of Asteraceae

**Completed M.Sc. Projects as Major advisor**

- Sodium Benzoate and Monosodium glutamate mediated mitotic aberrations in Onion root tip
- Study of Fern flora of Athirapally-Vazhachal areas of Thrissur District
- Effect of GA<sub>3</sub> and thiourea on *Abelmoschus esculentus* (L.) Moench seed germination and  $\alpha$  amylase activity (L.) Moench. under salinity stress
- Effect of air pollution on plant anatomy and chlorophyll content of *Eupatorium odoratum* and *calotropis gigantia*
- Antigenotoxic potential of Moringa leaf extract against Ni and Cd induced chromosomal aberrations in *Allium cepa*
- Impact of organic and inorganic fertilizers on the fungal dynamics in the rhizosphere of *Solanum melongena*
- A comparative account of Phytochemical screening and antioxidant properties in common cultivars of *Vigna unguiculata*
- Optimization of growth conditions for the production and activity of cellulase from *Pseudomonas* and *E.coli*

Papers in seminars,  
symposia, conferences: 7  
Articles: 1

**Seminars attended: 31**

### **Research Publications**

- Phytochemical screening and antioxidant properties of two common cultivars of *Musa paradisiaca* grown in Kerala.
- Epidermal studies in the genus *Polygala* Linn. *Geobios*, 27(4), 181-184,2000
- Autecology of *Cleome viscosa* Linn.,*Geobios*, 29(2-3),109-112, 2002.
- *Anabaena flos -aquae*(Lyngb.)Breb.Ex Born, Et Flah-New record from Kerala, *Geobios*, 29, 199, 2002
- Effect of sodium metabisulphite on germination, growth and yield of *Vigna sinensis*, Savi, *Journal of Environmental Biology*, 24(4), 2003.
- Effect of Phosphorus, a macronutrient on the growth and metabolism of some freshwater phytoplankters, *Plant Archives*,9(1), 433-436, 2009.
- Effect of fungicide Carbendazim on the growth and yield of *Phaseolus aureus* Roxb., *Annals of Basic and Applied Sciences*, 1(1), 2010
- Studies on leaf architecture of *Polygala* Linn., *Plant Archives*, 10(2), 551-553, 2010.
- Mitotic aberrations induced by Sodium benzoate, a food additive in *Allium cepa*. *Plant Archives*,1 0(2), 945-947, 2011.
- Monosodium glutamate (ajinomoto) induced mitotic aberrations in onion root tip. *Annals of Basic and Applied Sciences*, 2(1), 2011.
- Screening of some fresh water phytoplankton for the requirement of iron, a micronutrient in terms of growth and productivity, *International Journal of Current Research*, Vol.5, Issue 07, pp.1706-1708, 2013

- Response of *Chromolaena Odorata*(L.) King &Robins to Urban Air Pollution: Effects on Anatomy, Leaf Extract pH, Chlorophyll and Relative Water Content. *Annals of basic and applied sciences*

#### **Papers in Seminars, symposia and conferences proceedings**

- Mitotic aberrations induced by sodium benzoate and monosodium glutamate in *Allium cepa* L. In. Proceedings of UGC sponsored National Seminar on “Biodiversity and Conservation of Nature St. Joseph’s College , Irinjalkkuda Aug.23-24,2011
- Effect of Giberellin A3 on seed germination and  $\alpha$  amylase activity of *Abelmoschus esculentus* (L.) Moench. Under salinity stress. In the proceedings of UGC sponsored National seminar on Biodiversity and Conservation of Nature, St. Joseph’s College, Irinjalakkuda
- Biodiversity of Pteridophytes in adjoining areas of Athirapally and Vazhachal Waterfalls of Thrissur District, Kerala. In: Proceedings of UGC sponsored National seminar on Mangrove Biodiversity and Conservation at Sree Narayana College, Alathur, Palakkad, 16th and 17th February 2012.
- Impact of some organic and inorganic fertilizers on the species dynamics of rhizosphere mycoflora of *Solanum melongena* L In the proceedings of national Seminar on Biodiversity Conservation Trend and Need held at St.Thomas college, Thrissur on 5-7-March-2014. (in process)
- Herbs for Rejuvenation –In the proceedings of International seminar on Bona Salus” – a rendezvous on edging drifts in psychology and educatiobnal dimensions in the young populace, held at Little flower college, Guruvayoor on 13-6-2014
- Production, characterization and applications of cellulase isolated from *Pseudomonas fluorescens* & *Escherichia coli* In the proceedings of national seminar Microbes for Green Environment held at St. Mary’s College, Thrissur

- Comparative account on phytochemical and antioxidant properties in common varieties of *Vigna unguiculata* In the proceedings of National seminar cum workshop on Plant systematics and Herbarium techniques held at KKTm college, Kodungallur on sept 24th-25th 2014

#### Article

- “Karalathile Vanangal” In: Piravi-2006 Keralapiravi 50th Anniversary Souvenir published by Keralapiravi 59<sup>th</sup> anniversary committee, Thrissur

#### Papers presented in Seminars

- Best Practices of St. Mary’s College, Thrissur In: Two-day NAAC sponsored National Workshop on “Best Practices in Higher Education” organized by the Loyola College of Social Sciences, Thiruvananthapuram, from 18th-19th July 2009.
- Biodiversity of Pteridophytes in adjoining areas of Athirapally and Vazhachal Waterfalls of Thrissur District, Kerala. In: UGC sponsored National seminar on Mangrove Biodiversity and Conservation at Sree Narayana College, Alathur, Palakkad, 16<sup>th</sup> and 17<sup>th</sup> February 2012.
- Impact of some organic and inorganic fertilizers on the species dynamics of rhizosphere mycoflora of *Solanum melongena* L In the proceedings of national Seminar on Biodiversity Conservation Trend and Need held at St.Thomas college, Thrissur on 5-7-March-2014
- Herbs for Rejuvenation –In the proceedings of International seminar on “Bona Salus” – a rendezvous on edging drifts in psychology and educational dimensions in the young populace, held at Little flower college, Guruvayoor on 13-6-2014

#### Seminars Attended

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|  | <ul style="list-style-type: none"><li>• Attended one-day National seminar on ‘Environmental Management’ on 21st August 2004 at Rajagiri College of Social Science, Kakkanad, Ernakulam.</li><li>• Participated in the interactive workshop on “ Faculty Development Programme” conducted by Institute of Chartered Financial Analysts of India ( ICFAI) on 25th March 2006.</li><li>• One-day seminar on “ Quality Empowerment; Resources and Strategies” conducted by Internal Quality Assurance Cell, St.Thomas College, Thrissur on 15th July 2006.</li><li>• One-day seminar on “Building Awareness-Reducing Risk : Mental Illness and Suicides” conducted by District Mental Health Programme, Thrissur on 26th October 2006 at Govt. Mental Health Centre, Thrissur.</li><li>• Attended a talk on “Motivating the students” by Dr. T.P. Sasikumar on 28.08.2006.</li><li>• Attended UGC sponsored one day National Seminar on “Modern Science and Technology in India” organized by St.Mary’s College, Thrissur on 2nd March 2007</li><li>• A seminar on “Education Culture of Kerala” organized by Kerala Cultural Forum on 21st July 2007 at YMCA, Thrissur.</li><li>• Attended one day orientation programme on “ Teachers: Role models to the students” at Christ College , Irinjalakuda on 27th February,2008.</li><li>• Seminar conducted by AIACHE on the topic “ Sustainable Management of Water Hyacinth in Kerala Waters” held at International Hotel, Ernakulam on June 12th, 2008.</li><li>• Seminar on the topic “How to be an effective Teacher” organized by St. Mary’s College, Thrissur on July 4th 2008.</li></ul> |
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- Attended Orientation Programme from July 11th to Aug 7th 2008 organized by Academic Staff College, Calicut University.
- UGC sponsored national seminar on “Progress, Prospects and Problems in Bamboo Research” organized by Mercy College Palakkad on 18-11-2008.
- Participated in five-day workshop on “Restructuring Undergraduation Education: Botany”, Sponsored by The Kerala State Higher Education Council organized by Board of Studies in Botany (UG), Calicut University, from 16th – 21st February 2009.
- UGC sponsored two day National Workshop on “Biofertilizer Production Technologies” Organized by Dept. of Microbiology, St. Mary’s College, Thrissur on 2nd & 3rd March 2009.
- Attended UGC sponsored three day National Seminar on “Ecotechnologies and Evergreen Revolution” Organized by Depts.of Botany, Zoology & Biotechnology, St. Mary’s College, Thrissur from 4th – 6th March 2009.
- Attended Two-day NAAC sponsored National Workshop on “Best Practices in Higher Education” organized by the Loyola College of Social Sciences, Thiruvananthapuram, from 18th-19th July 2009.
- Attended NAAC sponsored two-day national seminar on “Inculcation of Research Culture for Quality Enhancement” at Vimala College, Thrissur from 25th -26th Nov.2010
- UGC sponsored two-day National Seminar on Nanobiotechnology organized by Depts. Of Botany, Zoology and Physics, St. Mary’s College, Thrissur on 11th-12th August 2012.

- UGC sponsored National Seminar on “Emerging trends in Biopharmaceuticals” on 26th-27th August 2012 at St. Mary’s College, Thrissur
- Seminar-cum- workshop on “Modern trends in Bioinformatics” on 12th December 2011 at St. Thomas College, Thrissur.
- UGC sponsored National Seminar on Mangrove Biodiversity and Conservation on 16th and 17th February 2012 at Sree Narayana College, Alathur, Palakkad
- Two day National Seminar on Student Support and Progression organized by IQAC, St.Mary’s College, Thrissur on 2nd and 3rd March 2012.
- UGC sponsored National Seminar on Mangrove Biodiversity and Conservation at Sree Narayana College, Alathur, Palakkad on 16th and 17th February 2012
- Two day National Seminar on Student Support and Progression organized by IQAC St.Mary’s College, Thrissur on 2nd and 3rd March 2012
- National seminar on Sustainable Food Systems for food security and Nutrition KKTU Govt.college, Kodungallur, 22nd&23rd-10-2013
- National Workshop on Digital Age Pedagogy: Perspectives &Prospects St.Mary’s College, Thrissur, 9th &10th- 1-2014
- One day International seminar on A rendezvous on edging drifts in the psychosocial and educational dimensions in the young populace, Little Flower college, Guruvayur 13-06-2014
- National seminar on Frontiers in Green Chemistry St. Mary’s College, Thrissur 24-25, July 2014

- National seminar on Microbes for Green Environment St. Marys college, Thrissur 21&22nd August 2014
- National seminar on Recent trends in higher education-scope and challenges in governance, St. Mary's college, Thrissur 26-09-2014
- KSCTE sponsored national seminar on Know the plants;Grow the plants St. Mary's college, Thrissur 27&28 November 2014

#### **Additional Duties/ Responsibilites**

- Co-ordinator-College level monitoring committee
- Fine arts Co-ordinator
- Faculty-in-Charge of Bhoomithra Club
- Co-ordinator -Value education committee
- IQAC Dept.Assistant

#### **Extension Activities**

- Resource person in the summer camp for school students
- Chaired various sessions in National seminars
- Guide of M.Sc. projects of external students
- Question paper setter for various Universities and PSC
- Provide guidance to school students in preparing their science project for district and state level exhibition

#### **Awards received:**

- Award for best publication in Botany instituted by research department of Botany St. Teresa's College, Ernakulam in the year 2013-2014

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