

Name: Dr. Hemalatha M.S.

Designation: Assistant Professor & Chairperson

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Date of Birth: 9th September 1977

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Field of Research: Food Science, Food Technology, Nutrition studies and Dietetics

Teaching Experience: 7 years

Professional Experience: 19 Years

Professional Recognition & Research Recognition: see detailed CV.

Academic/Membership in Professional bodies:

1. Indian National Science congress
2. Nutrition Society of India.
3. Indian Dietetic Association of India.
4. Association of Food Scientists and Technologists (India).

Areas of Interest: Food Science, Product Development, Clinical Nutrition, Community Nutrition and Dietetics; Science Education in ODL and Online mode; Virtual learning.

Research Interest: Product Development in Food Science, Clinical Nutrition studies in relevant to different disease condition, Experimental Nutrition, Community Nutrition and Dietetics

CURRICULUM VITAE

Dr. HEMALATHA, M.S.

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1. Academic Background

- **Chairperson**, DOS in Food Science and Nutrition, Karnataka State Open University, Mysore, February 2013 to February 2015 and February 2017 to Present
- **Assistant Professor**, DOS in Food Science and Nutrition, Karnataka State Open University, Mysore, 2012 to present
- **Co-ordinator, Examination Section**, Karnataka State Open University, Mysore, 2014-2015
- **R&D Manager**, Centre for Nutrition Research, Elite Group of Companies, Mysore, 2010 – 2012.
- **Women Scientist, DST**, Department of Biochemistry and Nutrition, Central Food Technological Research Institute, Mysore. 2007 – 2010.

Title of Ph.D. Thesis: **“Effect of Enzymes and Pentosans on Wheat Flour in relation to Functionality and Nutritional Quality”**

- **Junior Research Fellow**, 2003 – 2005 and **Senior Research Fellow**, 2005 – 2007 funded by DAE/BRNS, BARC, India at Central Food Technological Research Institute, Mysore.
- **Guest Lecturer, 2001-2002**, Maharani’s Science College for Women, Mysore. India.
- **M.Sc. Food Science and Nutrition, 2000** – DOS in Food Science and Nutrition, Manasagangothri, University of Mysore, Mysore. India.
Grade: First Division

- **B.Sc. Chemistry, Clinical Nutrition and Dietetics, Food Science and Nutrition, 1998** – Maharani Science College for Woman, University of Mysore, Mysore. India.
Grade: First Division

2. Academic Records

| Degree | University/Institute | Subjects | Maximum Marks | Marks Obtained | Percentage | Year of Passing |
|---------|--|---|---------------|----------------|------------|-----------------|
| Ph.D. | CSIR-Central Food Technological Research Institute | Food Science & Nutrition | -- | -- | -- | 2013 |
| UGC-NET | University Grants Commission | Home Science | -- | -- | -- | 2000 |
| M.Sc. | Mysore | Food Science & Nutrition | 1000 | 711 | 71.1 | 2000 |
| B.Sc. | Mysore | Chemistry, Clinical Nutrition & Dietetics, Food Science & Nutrition | 900 | 547 | 60.7 | 1998 |

3. Teaching Expertise:

- ✓ Nutrition-Clinical, Community
- ✓ Food science
- ✓ Food service
- ✓ Dietetics
- ✓ Nutritional Biochemistry
- ✓ Human Physiology

4. Research Expertise

- ✓ Food science and Technology
- ✓ Product Development and Formulations
- ✓ Nutrition-Analytical, Clinical and Community
- ✓ Nutritional Biochemistry

5. Technical Expertise

- **Biochemical techniques:** Spectrophotometry, Enzyme activity, Isolation, SDS-PAGE Gel Electrophoresis under reducing and non-reducing conditions, Column chromatography.
- **Rheological techniques:** Amylograph, Farinograph, Extensograph, Viscometer.
- **Chromatography:** Gas Liquid Chromatography (GLC), High Performance Liquid Chromatography (Analytical).
- **Experimental Baking:** Test baking of chapati, experimental bread, cakes and cookies.
- **Product Development:** Development of Nutra range formulas for diskettes, beverage and formulation of Instant Breakfast Mixes, Snack Mixes and Premixes like cakes, cookies and pan cakes.
- **Animal Experiments:** Growth studies in Rats, *in-vivo* GI studies in rats
- **Computer Skills:** Basic software for data analysis.

6. Awards and Honours

- a) **Best Poster Prize** in 19th World Congress of Food Science and Technology, 2018 (IUFOST) held at Mumbai, India for the poster entitled “Effect of chickpea-sesame based ready to use food on malnourished HIV Positive Children”.
- b) **Best Poster Prize** in 45th Annual National Conference of Nutrition Society of India (NSI), 2013 held at Hyderabad, India for the poster entitled “Development of Nutritious Food for Children to Combat Nutritional Deficiency Disorders”.
- c) **Best Poster Prize** in International Food Convention, 2008 (IFCON) held at Mysore, India for the poster entitled “Role of pentosans in relation to chapati making quality”.
- d) **Best Poster Prize** in Indian Convention of Food Scientists and Technologists, 2006 (ICFOST) held at Hyderabad, India for the poster entitled “Effect of enzymes on chapati quality and its staling”.
- e) **Women Scientist** from Department of Science and Technology (DST) under Women Scientist Scheme (WOS-A), New Delhi, India.

- f) **Junior Research Fellowship and Senior Research Fellowship** from Bhaba Atomic Research Centre (BARC), Mumbai, India.
- g) **Eligibility for Lectureship (NET)** from University Grants Commission – National Eligibility Test (UGC-NET), New Delhi, India.

7. Research & Teaching Interest

To apply my present research experience and knowledge of Food Science and Nutrition to promote both basic and applied research in areas of Food and Nutrition sciences using strong interpersonal communication and skills.

8. Research Experience: 15 Years

9. Teaching Experience: 6 years

10. Administrative Experience: 4 years

11. Memberships of Different Bodies

1. Life member of Indian National Science congress
2. Life member of Nutrition Society of India.
3. Life member of Indian Dietetic Association of India.
4. Life member of Association of Food Scientists and Technologists (India).
5. BOS/BOE Member

12. Courses taught and other services provided to students and the home institution

Courses taught:

1. M.Sc. in Clinical Nutrition and Dietetics.
2. M.Sc. in Food Science and Nutrition.
3. B.Sc. (Food Science and Nutrition; Clinical Nutrition and Dietetics; Food Science and Quality control; Home Science specialization).

Other Services:

1. Guiding students for Dissertation.
2. Counselling Classes for students as the admission is through distance mode.
3. Training at Hospitals for therapeutic diets

Services to Home Institution:

1. Administrative responsibilities – Department Chairperson
2. Coordinator, Examination Section for collaborative institutes.
3. Developed question paper patterns for PG entrance Exams.
4. Worked as Chief Superintendent for different Examinations

13. Salient findings of my doctoral research work

Enzymes are a very good source of alternate dough improvers because, they are generally regarded as safe, required in very small amounts and specific in their action. Enzymes contribute to dough quality and in turn chapati quality.

- ✓ Chapatis prepared from enzyme treated dough improved the chapati quality
- ✓ Staling rate of chapatis were decreased
- ✓ Antioxidant properties improved on treating with enzymes
- ✓ Nutritional quality improved on treating with enzymes
- ✓ *In-vitro* and *in-vivo* studies showed low GI in chapatis treated with enzymes

Pentosans are known to have high viscosity and gelling property. Pentosans contribute to dough quality and in turn chapati quality.

- ✓ Pentosans were isolated from different wheat varieties and were subjected to gas liquid chromatograph
- ✓ Arabinose-xylose ratio were high in varieties having good chapati quality
- ✓ Isolated pentosans were incorporated in dough and rheology studies were done
- ✓ Dough properties had improved on incorporating isolated pentosans
- ✓ Chapatis prepared from dough incorporated with isolated pentosans had good quality

14. Projects Handled

Studies on proteins and pentosans on chapatti making quality in different wheat cultivars funded by Department of Science and Technology, India from 3rd July 2007 to 2nd July 2010 and the grant amount was Rs. 6, 84, 000/-.

15. Research papers published / accepted for publication / communicated for publication

1. Sanjeev S. Tonni, Anitha C, **Hemalatha MS** & Amrutha Kalyani (2017). Prevalence of Anemia in Pregnant Women WRST Socio-economic status: Observational Study, *International Journal of Food, Nutrition and Dietetics*, 5(2), 41-49.
2. **Hemalatha MS**, Manjunatha CS & Niranjan Raj S. (2017). Assessment of Iron Deficiency Anemia among school going children in rural areas of Mandya and Mysuru district, *International Journal of Multidisciplinary Research*, 6(7), 62-69.
3. Niranjan Raj S, Manjunatha CS, **Hemalatha MS**, Umashankara M & Lavanya SN. (2017). Millets for mitigating Malnutrition: Value addition for rural health development programmes, *International Journal of Multidisciplinary Research*, 6(7), 70-79.
4. **Hemalatha MS**, Leelavathi K, Salimath PV & Prasada Rao UJS. (2014) Control of chapati staling upon treatment of dough with amylases and xylanase, *Food Bioscience*, 5, 73-84.
5. **Hemalatha MS**, SaiManohar R, Salimath PV & Prasada Rao UJS. (2013) Effect of added arabinoxylans isolated from good and poor chapati making wheat varieties on rheological properties of dough and chapati making quality, *Food and Nutrition Sciences*, 4, 884-892.
6. **Hemalatha MS**, Bhagwat SG, Salimath PV & Prasada Rao UJS. (2011). Enhancement of soluble dietary fibre, polyphenols and antioxidant properties of chapatis prepared from whole wheat flour dough treated with amylases and xylanase. *Journal of the Science of Food and Agriculture*, 92, 764 – 771.
7. **Hemalatha MS**, Prasada Rao UJS, Leelavathi K & Salimath PV. (2010). Influence of amylases and xylanase on chemical, sensory, amylograph properties and microstructure of chapati. *LWT- Food Science and Technology*, 43, 1394 – 1402.
8. **Hemalatha MS**, Manu BT, Bhagwat SG, Leelavathi K & Prasada Rao UJS. (2007). Protein characteristics and peroxidase activities of different Indian wheat varieties and their relationship to chapati-making quality. *European Food Research and Technology*, 225, 463-471.
9. **Hemalatha MS** & Jamuna Prakash (2002). An awareness creation programme for women on nutrition through green leafy vegetables. *The Indian Journal of Nutrition & Dietetics*, 39, 17 – 25.

Manuscript under preparation:

- **Hemalatha MS** & Prasada Rao UJS. “Effect of fats and surfactants on microstructure, sensory, textural and amylograph characteristics of fresh and stored chapatis” (communicated).
- **Hemalatha MS** & Prasada Rao UJS. “Effect of peroxidase-treated wheat dough: protein characteristics and digestibility of starch and protein”.
- **Hemalatha MS**, Salimath PV & Prasada Rao UJS. “Pentosan characteristics of different Indian wheat varieties and their relationship to Bread-making quality”.

Handbook Authored:

- **Hemalatha MS** & Jamuna Prakash, (2001). "Eating for health, Nutrition through green leafy vegetables"

Book Chapter Authored:

- Prasada Rao UJS and **Hemalatha MS**. "Enzymes" in Baking Products Science and Technology, 2nd Edition, Wiley-Blackwell, Oxford, ISBN 978-1-119-96715-6, August 2014, 275 pp

Book Authored:

- **Hemalatha MS** & Jamuna Prakash, (2017). "A simple guide to right eating: Nutrition through green leafy vegetables"

Patent Awarded:

- Patent Application No: 201641011886A, Title: A system for stored water quality monitoring, stored water purification and stored water quality data communication

Conferences Organized:

- National Symposium on Clinical Nutrition and Dietetics– Current Practice and Future Trends” in association with India Dietetic Association, Mysore chapter on 6th September 2018 IOE Auditorium, Vigyan Bhavan, Mansagangotri, Mysuru.
- National conference Food based approaches for translational nutrition in association with Nutrition Society of India, Mysore chapter during 12th and 13th April 2017 at Senate Bhavan, University of Mysore, Mysuru.

Invited Lecture:

- Lecture on “Nutrition for Construction Labourers” at BAI Office, Mysore Chapter organised by BAI and Ladies Wing-Spoorthi, Mysore
- Lecture on “Balanced diet for Rural Woman” at 100.6 Akashvani, Mysore organised by Akashvani Centre, Mysore
- Lecture on “Nutrition for Woman” at Rangasamudra, Bannur organised by Organic Food Federation, Mysuru, Karnataka
- Lecture on “Nutrition for Preschoolers” at Pramati Hill View School, Mysuru, Karnataka
- Lecture on “Recent Trends in Nutrition” at World Environment Day organised by Builders Association of India, Mysore Chapter, Mysuru, Karnataka
- Lecture on “Nutrition for Healthy Living” at Spoorthi, Ladies wing of Builders Association of India, Mysore Chapter, Mysuru, Karnataka
- Lecture on “Food for Health” at Senior Citizens Seva Samithi, Mysuru, Karnataka.
- Lecture on “Nutrition for Adolescents” at Mahila Dasara, Mysuru arranged by Woman and Child welfare Department.
- Lecture on “Modifications in Diet” at KLE University, Belgavi, Karnataka
- Lecture on “Nutrition on growth & development” at Krishnam Yoga Centre, Kengeri, Bangalore
- Lecture on “Effect of Junk foods on health” at NGO centre, Mandya, Karnataka

Abstracts presented at Academic Conferences:

1. **Hemalatha MS**, Surendra K.S., Anitha C & Prajwala Mouliswara. Impact of Nutrition Education Programme on End-Stage Renal Disease Patients Undergoing Haemodialysis at 51st National Conference of Nutrition Society of India, 2019 (NSI) held at Trivandrum, India from 8th to 9th November 2019 pp-56.
2. **Hemalatha MS**, Kavyashree K.S., Vishwanath B.M. & Anitha C.

- Evaluation of Indian Amaranthus Leaves on Anemia affected Adolescents at 50th **International** Conference of Nutrition Society of India, 2018 (NSI) held at Hyderabad, India from 15th to 17th November 2018 pp-110
3. Anitha C., **Hemalatha MS** & Sushma B.V. Effectiveness of weight management intervention on women with Polycystic ovarian syndrome at 50th **International** Conference of Nutrition Society of India, 2018 (NSI) held at Hyderabad, India from 15th to 17th November 2018 pp-110
 4. Ranjitha Bhandari & **Hemalatha MS**. Effect of chickpea-sesame based ready to use food on malnourished HIV Positive Children at 19th **World Congress** of Food Science and Technology, 2018 (IUFOST) held at Mumbai, India from 23rd to 27th October 2018 pp-287
 5. **Hemalatha MS**, Kavyashree K.S., Vishwanath B.M. & Anitha C. Effect of Okra (Ladies Finger) on blood sugar level in Diabetes Mellitus patients at 19th **World Congress** of Food Science and Technology, 2018 (IUFOST) held at Mumbai, India from 23rd to 27th October 2018 pp-80
 6. Anitha C. Deepa B.M., & **Hemalatha MS**, Effect of supplementing wheat grass juice on the blood glucose level of diabetic patients at 19th **World Congress** of Food Science and Technology, 2018 (IUFOST) held at Mumbai, India from 23rd to 27th October 2018 pp-189
 7. **Hemalatha MS**, Priyanka R & Anitha C. Assessment of Knowledge and Diet pattern among Non-Insulin dependent Diabetes Mellitus Patients. University with Potential for Excellence Sponsored Silver Jubilee National Seminar on 'Risks and Resilience Across The Life Span' Organised by Department of Human Development, University of Mysore, Mysuru, India. March 15-16, 2018, pp-22.
 8. **Hemalatha MS**, Anitha C, Mamatha Jyothi K & Bharatish DS, Effect of Wheat Grass Juice on the Hemoglobin Levels of Adolescent Girls in Urban Cities. 26th Indian convention of Food Scientists and Technologist Organised by AFST (I), CSIR-IICT Hyderabad, India. Dec 7-9, 2017, pp-184.
 9. Deepashri CV, Bijili Sanjay & **Hemalatha MS**, Effect of Intervention Programmes on blood sugar levels of gestational diabetes mellitus at National conference on Food based approaches for translational nutrition organized by Nutrition Society of India (Mysore Chapter) on 12th & 13th, April, 2017 pp-114

10. **Hemalatha MS** & Anitha C., Impact of nutrition Intervention programme on Diabetes Mellitus Patients at XL Indian Social Science Congress organized by Indian Academy of Social Sciences and University of Mysore, Mysore, from 19th to 23rd, December, 2016
11. **Hemalatha MS** & Anitha C., Evaluation of Supplementation of Indian Goose Berry and Ash Gourd to Patients Suffering from Gastritis at 48th Annual National Conference of Nutrition Society of India, St. John's Hospital, Bengaluru, India, Nov 4-5, 2016, pp-101.
12. **Hemalatha MS**, Rajendra AC, Anitha C, Correlating the body composition with the risk of developing chronic disorders like diabetes Mellitus and hypertension using bioelectrical impedance analyzer" at 49th Annual National conference of Indian Dietetic Association, Mumbai, 23-25th September, 2016, pp-157.
13. Anitha C. Jayashree & **Hemalatha MS**, Efficacy of Ragi porridge on iron deficiency anemia among early adulthood girls, 103rd Indian Science Congress 2016, Women's Science Congress, University of Mysore, Mysuru, 3-7 January 2016.
14. Prabhavathi S.N., Anitha C & **Hemalatha MS**, A Comparative study on the nutritional status of rural and urban school children of Hassan District, 103rd Indian Science Congress 2016, Women's Science Congress, University of Mysore, Mysuru, 3-7 January 2016.
15. Prajwala, Anitha C & **Hemalatha MS**, Impact of Nutrition Intervention in Managing Osteoporosis among women working at Textile industry, 103rd Indian Science Congress 2016, Women's Science Congress, University of Mysore, Mysuru, 3-7 January 2016.
16. Kavyashree YS, Anitha C. & **Hemalatha MS**, Study of supplementation of dietary garlic (*Allium sativum*) on hypertensive patients. 48th Annual National conference of Indian Dietetic Association, Bangalore, India, November 19-21, 2015, pp-215-216.
17. **Hemalatha MS**, Mohana Kumara AP, Anitha C. & Ramesh Kumar KL, A study on the efficacy of aloe vera juice in the management of viral hepatitis. 11th **International** Food Data conference, NIN, Hyderabad, India, November 3-5, 2015, pp-224.
18. **Hemalatha MS**, Sonia Agnes D'Souza & Anitha C., Impact of Education programme on consumption of junk foods in adolescents. **International** conference on Advances in Home

- Science studies, SPMV, Tirupati, India, February 20-21, 2015, pp-164-165.
19. Anitha C., Rajashekhar P & **Hemalatha MS**, Factors influencing knowledge and practice regarding antenatal diet among expectant mothers. **International** conference on Advances in Home Science studies, SPMV, Tirupati, India, February 20-21, 2015, pp-109.
 20. Vani R.S., Anitha C & **Hemalatha MS**, Barley water a remedy for urinary tract infection during pregnancy. **International** conference on Yoga & Naturopathy, SDMCNYS, Ujire, Dakshina Kannada, India, December 12-14, 2014, pp-65.
 21. Jyothsna V Rao, Anitha C & **Hemalatha MS**, Efficacy of Cocumm (Garcinia Indica) juice in lowering obesity. **International** conference on Yoga & Naturopathy, SDMCNYS, Ujire, Dakshina Kannada, India, December 12-14, 2014, pp-51.
 22. Ramakrishna Prasad & **Hemalatha MS**, Study of Hypoglycemic effect of bittergourd powder on diabetic patients in selected subjects. Emerging Health Issues across the Life Stages, Mysuru, India, March 6-7, 2014, pp-159.
 23. Ashwath Kumar K, **Hemalatha MS**, Jyothilakshmi A, Sindhu Kanya T C, Venkat Rao S, Development of Nutritious Food for Children to Combat Nutritional Deficiency Disorders. 45th Annual National Conference of Nutrition Society of India, NIN, Hyderabad, India, Nov 21-22, 2013, pp-149.
 24. **Hemalatha MS**, Salimath PV & Prasada Rao UJS, Studies on peroxidase-treated wheat dough: protein characteristics and digestibility of starch and protein. 20th Indian convention of Food Scientists and Technologist Organised by AFST (I), CFTRI, DFRL, and NDRI, Bangalore, India. Nov 21-23, 2009, pp-57.
 25. **Hemalatha MS**, Prasada Rao UJS & Salimath PV, Role of pentosans in relation to chapati making quality. 6th **International** Food Convention, Organised by AFST (I), CFTRI and DFRL, Mysore, India. Dec 15-19, 2008, pp-44.
 26. **Hemalatha MS**, Prasada Rao UJS & Leelavathi K, Effect of enzymes on chapati quality and its staling. 18th Indian convention of Food Scientists and Technologist, Organised by AFST (I), CFTRI and DFRL, Hyderabad, India. Nov 16-17, 2006, pp-25.
 27. **Hemalatha MS**, Manu BT, Prasada Rao UJS, Bhagwat, S.G. & Leelavathi K, Protein characteristics and peroxidase activity of different Indian wheat varieties and their correlation to chapati quality. 17th Indian convention of Food Scientists and

- Technologist, Organised by AFST (I), CFTRI and DFRL, Bangalore, India. Dec 9-10, 2005, pp-22.
28. **Hemalatha MS**, Prasada Rao UJS, Bhagwat, SG & Leelavathi K, Comparison of Physico-chemical and rheological properties of whole wheat flour and refined wheat flour from different Indian aestivum wheats. 16th Indian convention of Food Scientists and Technologist, Organised by AFST (I), CFTRI and DFRL, Mysore, India. Dec 9-10, 2004, pp-26-27.
29. **Hemalatha MS**, Prasada Rao UJS, Bhagwat, SG & Leelavathi K, Chapati and bread making properties of newer varieties of Indian aestivum wheats. XXXVI annual meet of Nutrition Society of India. Organised by DOS Food Science and Nutrition, Mysore University, CFTRI and DFRL, Mysore, India. Nov 5-6, 2004, pp-158-159.

16. References

1. Dr. P.V. Salimath, (Ph.D. Guide)

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