

## **CURRICULAM VITAE**

**Dr.(Mrs.) M.C.S.Subha**, M.Sc., M.Phil., Ph.D.

Senior Professor

Department of Chemistry

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1. **Date of Birth and Place** : **June 06, 1957, Guntakal, Anantapur, (Dt) A.P.** (Annexure - I)
  2. **Nationality** : **Indian**
  3. **Caste** : **BC-‘D’ KATIKA** (Annexure - II)
  4. **Awards / Recognition by the state/National/International level** (Annexure - III)
    - 1) Andhra Pradesh State Best Teacher Award- 2006.
    - 2) Bharat Jyothi Award, International Friendship Society (New Delhi)-2006
    - 3) Common wealth Academic staff fellowship award U.K. (1993-94)
    - 4) UGC New Delhi, INSA award – 1998-99
    - 5) MARQUIS WHO’s WHO in Science & Engineering (New Jersey, U.S.A), 2009-2010.
    - 6) UGC, New Delhi visiting Scientist – 1994-1996.
    - 7) Maharani Jhanshi Puraskar awarded by Bharatiya Sumskruthi Nirman Parishad, Hyderabad-2010.
  5. **Professional Membership**  
**Life Member of Professional bodies**
    - Indian Association of Nuclear Sciences, **BARC, Mumbai.**
    - Indian Society of Technical Education, **New Delhi.**
    - Indian Membrane Society, **Baroda, India.**
    - Ultrasonic Society of India, **New Delhi.**
    - Indian Chemical Society, **Calcutta.**
    - Indian Society for Surface Science and Technology, **Calcutta..**
    - Society for Polymer Science, **Karnataka, India.**
    - American Biographical Institute – **Member of Professional Women’s Advisory Board.**

## 6. Education

Ph.D, 1987, Sri Krishnadevaraya University, Anantapur.  
M.Phil, 1981, Sri Krishnadevaraya University, Anantapur.  
Post Graduation, M.Sc Chemistry, 1979, S.V.University, Tirupathi.  
Graduation, B.Sc. 1977, S.V.University, Tirupathi.  
CSIR SRF, New Delhi, 1982-1983.  
CSIR JRF, New Delhi, 1980-1982.

## 7. Professional and Academic Experience

**33 Years and 10 months P.G teaching Experience at S.K University only.**

**17 Years as Professor of Chemistry at S.K.University.**

## 8. Employment:

(Annexure - IV)

**1982-1989 – Lecturer/Assistant Professor, S.K. University, Anantapur.**

**1989-1998 – Reader/Associate Professor, S.K. University, Anantapur.**

**1998-till date – Professor, S.K. University, Anantapur.**

## 9. Achievements at a glance

- 36 Years of research experience in the field of  
**Physical Chemistry:** (i) Thermodynamics study of liquid mixtures.  
(ii) Chemical kinetics.  
**Polymer Chemistry:** (i) Polymer Membranes-Pervaporation Studies.  
(ii) Drug Delivery.  
(iii) Polymer Surfactant interactions.  
(iv) Titration micro calorimetry.
- Successfully guided **25 students** for Ph.D and **7 students** for M.Phil and worked as Principal Investigator for **5 Major** and **2 Minor** Research projects.
- Published nearly **153** (Foreign Journals: 99; Indian Journals: 54) original Research Papers in peer-reviewed journals.
- Presented **97** Research Papers in National and International Scientific Conferences in India and abroad.
- **Organized** Two day National seminar on **“Role of Chemistry in Emerging areas of Biology and Industries-RCEABI-2006”** in Chemistry at S.K. University, Anantapur. 24-25, March 2006.
- **Organized** Three day National seminar on **“Mordern Trends in Ananalytical Methods of Ananalysis-MTAMA-2008”** in Chemistry at S.K. University, Anantapur. 25-27, Feb, 2008.
- Was Invited as Speaker for different Seminars/Conferences and Chaired different sessions.
- Established an advanced laboratory on Membrane / Drug delivery Research Laboratory using modern instruments costing worth of **Rs. 40.0 lakhs.**

## **10. Administrative Experience around 12 years:**

(Annexure - V)

Contributed to the academic growth and the development of Sri Krishnadevaraya University:  
33 years

Dean, CDC	: S.K. University, Anantapuramu from Jan 2014 to till date.
Deputy Warden	: Ladies hostel for a period of 1 year in S.K University, Anantapur (1992-1993).
Additional Director	: Center for Distance Education, S.K. University Anantapur for a Period of 1 year (2004-2005).
Dean, P.G exams	: S.K. University, Anantapur for a period of one and half year (2005-2007).
Head	: Department of Chemistry, S.K. University, Anantapur for a period of 3 years (2005-2008).
Chairperson	
Board of Studies	: Department of Chemistry, S.K. University, Anantapur for a period of 3 years (2006-2009).
Vice-President	: S.K. University, Teaching association, Anantapur (2002-2003)

## **11. Served as member in different committees**

(Annexure - VI)

1. Complaints & Grievances Committee.
2. Inter Collegiate Youth festival.
3. Central admission committee.
4. National Science day celebrations.
5. Women's day celebrations.
6. College magazine committee.
7. University convocation committee.
8. Inception and enquiries committee.
9. SKU College Hand Book Committee.
10. Committee on restructuring of Hostel and Central Hostel Office.
11. As Dean CDC, she was on many committees through APSCHE in evaluating the permission for affiliation to different colleges in AP in general and Ananthapuram in particular.

## **12. Area of Expertise both in Teaching and Research:**

Chemical Kinetics, Thermodynamics, Electro Chemistry, Polymer Chemistry and Analytical Chemistry, Polymer membranes pervaporation and Polymeric drug delivery systems.

### 13. National/International Exposure:

(Annexure - III)

- **Visited University of Leicester, U.K.** during the year 1993-1994 under Commonwealth academic staff fellowship.
- Academic visit Department of Chemistry, **University of Swansi, U.K.** (1994).
- Academic visit Department of IPTME, **Loughborough University, U.K.** (1994).
- **UGC-Visiting Fellowship** from UGC, New Delhi for a period of six months to work at IIT, New Delhi (1994-1995).
- **INSA Visiting Fellowship** from UGC, New Delhi for a period of 3 months to work at IICT, Hyderabad (1998-1999).

### 14. Work cited in a Classified References and Journals

#### **Prof. M.C.S.Subha**

Professor of Chemistry, Sri Krishnadevaraya UIniversity  
Polymer Blends, Thermodynamic study of liquid mixtures, polymer membranes, Pervaparations, Polymer drug delivery studies  
My profile is public

<b>Citation indices</b>	All	Since 2009
Citations	1112	890
h-index	20	18
i10-index	35	22

Preparation and characterization of microcapsules containing linseed oil and its use in self-healing coatings

C Suryanarayana, KC Rao, D Kumar  
Progress in Organic Coatings 63 (1), 72-78

126 2008

Densities and viscosities of mixtures of some glycols and polyglycols in dimethyl sulfoxide at 308.15 K

B Vijaya Kumar Naidu, K Chowdoji Rao, MCS Subha  
Journal of chemical and engineering data 47 (3), 379-382

61 2002

The evaluation of the acute toxicity and long term safety of hydroalcoholic extract of Sapthaparna (*Alstonia scholaris*) in mice and rats

MS Baliga, GC Jagetia, JN Ulloor, MP Baliga, P Venkatesh, R Reddy, ...  
Toxicology letters 151 (2), 317-326

42 2004

Titration calorimetric and spectrophotometric studies of micelle formation by alkyltrimethylammonium bromide in aqueous solution

J Bach, MJ Blandamer, K Bijma, JBFN Engberts, PA Kooreman, ...  
Journal of the Chemical Society, Faraday Transactions 91 (8), 1229-1235

42 1995

<p>Temperature sensitive semi-IPN microspheres from sodium alginate and N-isopropylacrylamide for controlled release of 5-fluorouracil</p> <p>K Mallikarjuna Reddy, V Ramesh Babu, KSV Krishna Rao, MCS Subha, ...</p> <p>Journal of applied polymer science 107 (5), 2820-2829</p>	38	2008
<p>Compatibility studies of chitosan/PVA blend in 2% aqueous acetic acid solution at 30 C</p> <p>HMPN Kumar, MN Prabhakar, CV Prasad, KM Rao, TVAK Reddy, KC Rao, ...</p> <p>Carbohydrate Polymers 82 (2), 251-255</p>	33	2010
<p>Development and characterization of chitosan-poly (vinyl pyrrolidone) blend microspheres for controlled release of metformin hydrochloride</p> <p>CL Narayana Reddy, BY Swamy, CV Prasad, K Madhusudhan Rao, ...</p> <p>International Journal of Polymeric Materials 61 (6), 424-436</p>	22	2012
<p>Flexural, compressive, and interlaminar shear strength properties of kapok/glass composites</p> <p>GV Reddy, TS Rani, KC Rao, SV Naidu</p> <p>Journal of Reinforced Plastics and Composites</p>	22	2008
<p>Densities, viscosities, and excess properties for binary mixtures of some glycols and polyglycols in N-methylacetamide at 308.15 K</p> <p>B Vijaya Kumar Naidu, K Chowdoji Rao, MCS Subha</p> <p>Journal of Chemical &amp; Engineering Data 48 (3), 625-627</p>	22	2003
<p>Densities, Viscosities and Excess Properties for Binary Mixtures of some Glycols and poly glycols in N-methylacetamide at 308.15K</p> <p>KCRMCSS B. Vijaya Kumar Naidu</p> <p>Journal of Chemical and Engineering Data 48, 625-627</p>	<u>22</u>	2003
<p>Ascorbic acid increases healing of excision wounds of mice whole body exposed to different doses of <math>\gamma</math>-radiation</p> <p>GC Jagetia, GK Rajanikant, KVN Rao</p> <p>burns 33 (4), 484-494</p>	21	2007
<p>Interpenetrating polymer network microspheres of hydroxy propyl methyl cellulose/poly (vinyl alcohol) for control release of ciprofloxacin hydrochloride</p> <p>B Yerriswamy, CV Prasad, CLN Reddy, B Mallikarjuna, KC Rao, ...</p> <p>Cellulose 18 (2), 349-357</p>	20	2011
<p>Novel nanocomposite membranes of sodium alginate filled with polyaniline-coated titanium dioxide for dehydration of 1, 4-dioxane/water mixtures</p> <p>BG Lokesh, KSVK Rao, KM Reddy, KC Rao, PS Rao</p> <p>Desalination 233 (1), 166-172</p>	18	2008

<p>Preparation and characterization of pH sensitive poly (vinyl alcohol)/sodium carboxymethyl cellulose IPN microspheres for in vitro release studies of an anti-cancer drug</p> <p>KM Rao, B Mallikarjuna, KSVK Rao, MN Prabhakar, KC Rao, MCS Subha Polymer bulletin 68 (7), 1905-1919</p>	17	2012
<p>Novel thermo/pH sensitive nanogels composed from poly (N-vinylcaprolactam) for controlled release of an anticancer drug</p> <p>KM Rao, B Mallikarjuna, KSVK Rao, S Siraj, KC Rao, MCS Subha Colloids and Surfaces B: Biointerfaces 102, 891-897</p>	16	2013
<p>Synthesis and characterization of sodium alginate-g-2-hydroxyethyl methacrylate interpenetrating beads for controlled release of acebutolol hydrochloride</p> <p>B Yerriswamy, CL Reddy, CV Prasad, MCS Subha, KC Rao Designed Monomers and Polymers 14 (1), 25-37</p>	14	2011
<p>Thermodynamic study of formamide plus ethylene glycol, plus diethyleneglycol, plus triethyleneglycol, plus poly (ethyleneglycol)-200,+ poly (ethyleneglycol)-300,+ propyleneglycol and plus poly (propyleneglycol)-1025 binary liquid mixtures at 35 degrees</p> <p>BVK Naidu, KC Rao, MCS Subha JOURNAL OF THE INDIAN CHEMICAL SOCIETY 78 (5), 259-262</p>	14	2001
<p><u>Effects of added dotab on the cmc and enthalpy of micelle formation at 298.2 K for CTAB (aq)</u></p> <p>MJ Blandamer, PM Cullis, LG Soldi, K Chowdoji Rao, MCS Subha Journal of Thermal Analysis and Calorimetry 46 (6), 1583-1588</p>	14	1996
<p>Pervaporation studies of sodium alginate (SA)/dextrin blend membranes for separation of water and isopropanol mixture</p> <p>M Saraswathi, KM Rao, MN Prabhakar, CV Prasad, K Sudakar, ... Desalination 269 (1), 177-183</p>	13	2011
<p>Synthesis and Characterization of pH sensitive Poly (Hydroxy ethyl methacrylate-co-acrylamidoglycolic acid) based hydrogel for controlled release studies of 5-fluorouracil</p> <p>KCRM CSS K. Madhusudan Rao, B. Mallikarjuna, KSV. Krishna International Journal of Polymeric Materials 62 (11), 565-571</p>	12*	2013

### **15. Research Grants:- Rs 40.0 Lakhs**

#### **Minor Research Projects**

<b>S.No</b>	<b>Name of the project</b>	<b>Amount (Rs.)</b>	<b>Funding Agency</b>	<b>Duration</b>
1	Physico-Chemical properties of some bio-model compound in aqueous and mixed aqueous solutions	15,000/-	UGC New Delhi	1989-1991
2	Solute-Solvent interactions in Binary liquid mixtures	8,000/-	UGC New Delhi	1996-1997

#### **Major Research Projects**

<b>S.No</b>	<b>Name of the project</b>	<b>Amount (Rs.) (lakhs)</b>	<b>Funding Agency</b>	<b>Duration</b>
3	Physico-Chemical studies in the interaction between water soluble polymers and surfactant aggregates	2.7	UGC New Delhi	1997-2000
4	Hydrogels of interpenetrating polymer net work: Synthesis and applications	5.0	UGC New Delhi	2002-2005
5	Synthesis and Characterization of Novel Polymeric Particulate Drug Delivery Systems for Controlled Delivery and Targeting Applications	9.5	UGC New Delhi	2007-2010
6	Development and characterization of Biodegradable polymer blends based on natural and synthetic polymers for Pervaporation and Packaging films applications	12.5	UGC New Delhi	2011- 2014
7	UGC BSR One Time Grant	7.00	UGC New Delhi	2012-14

**16. Research Guidance****(i) Ph.D Students Guided:****Ph.D Degree: Completed: 22**

<b>S.No</b>	<b>Name of the Candidate</b>	<b>Topic</b>	<b>Degree</b>	<b>Year</b>
1	<b>C. Nagamani</b>	Thermodynamic Study of Polymer Blend Solutions	Ph.D	1999
2	<b>S. Bahadur Alisha</b>	Physico Chemical Properties of Solutions	Ph.D	2001
3	<b>M. Eswari Bai</b>	A Study of Molecular Interactions in Solutions	Ph.D	2002
4	<b>N. Surendra Babu</b>	Physico- Chemical Studies on the Interaction between Water Soluble polymers and Surfactant aggregates	Ph.D	2002
5	<b>K.S.V. Krishna Rao</b>	Polymer Interpenetrating Network Systems: Synthesis, Development and Applications.	Ph.D	2005
6	<b>K.G. Neerajakshi</b>	Solute Solvent Interaction Studies	Ph.D	2006
7	<b>R. Bharathi</b>	Synthetic Utility of Macromolecules based on their Physico-Chemical Properties.	Ph.D	2006
8	<b>K. Mallikarjuna Reddy</b>	Synthesis and development of New Polymeric Membranes for controlled release of Bioactive Molecules/ Pervaporation	Ph.D	2007
9	<b>A.B.V. Kiran Kumar</b>	Synthesis of Antimicrobial studies on some Novel Organo Sulphur compounds and Isonazoliers	Ph.D	2007
10	<b>C. Lakshminarayana Reddy</b>	Synthesis and Characterization of novel polymeric matrices for controlled drug delivery applications	Ph.D	2009



11	<b>T. Sobha Rani</b>	Optimization of the synthesis, characterization and application water gels base silica aerosols and their by brides.	Ph.D	2009
12	<b>B. Yerri Swamy</b>	Development and evaluation of interpenetrating polymeric microspheres for drug delivery applications	Ph.D	2010
13	<b>P. Rama Krishana</b>	Development and evaluation of polymeric matrices for controlled release applications	Ph.D	2010
14	<b>Narashimha Sharma</b>	Synthesis and pharmacological activities of some heterocyclic compounds	Ph.D	2010
15	<b>D.M. Suhasini</b>	A Study of Advanced Organic Molecules.	Ph. D	2011
16	<b>S Nagaraju</b>	Solute-solvent interactions studies of amino acids	Ph. D	2012
17	<b>B. Mallikarjuna</b>	Polymeric nano carriers for drug delivery applications	Ph. D	2012
18	<b>K. Madhusudhana Rao</b>	Polymers for pervaporation and target drug delivery	Ph. D	2013
19	<b>A.Sreenivasa Reddy</b>	Novel acid and Base catalysed rearrangement studies on ethers. Synthesis or regiospecific Ketones, Chiral Amines and Amino acids.	Ph. D	2014
20	<b>A. Chandra Babu</b>	Design synthesis and characterization of novel biodegradable polymeric matrices for medical applications	Ph. D	2014
21	<b>S. Siraj</b>	Design and development of biodegradable polymeric microspheres/hydrogels for	Ph. D	2014

		biomedical applications		
22	<b>K. Vijaya Lakshmi</b>	Thermodynamic and transport studies on molecular interactions in binary liquid mixtures	Ph. D	2014
23	<b>U. Sajankumarji Rao</b>	Preparation and characterization of polymer membranes for separation of liquid mixtures using pervaporation techniques.	Ph.D	2015
24	<b>K.V.Sekharnath</b>	Preparation and characterization of mixed matrix membranes for separation of liquid mixtures using pervaporation techniques.	Ph.D	2015
25	<b>P. Sudhakar</b>	Development of polymeric micro particulate drug formulations and their in – vitro release characteristics and applications	Ph.D	2015

*(ii) Ph.D Degree: Ongoing: 7*

<b>S.No</b>	<b>Name of the Candidate</b>	<b>Topic</b>	<b>Degree</b>
1	<b>N. Jayachandra Reddy</b>	Thermo physical properties binary liquid mixtures	Working
2	<b>K. Radha Krishna Murthy</b>	Thermodynamic study of liquid mixtures	Workin
3	<b>J. Veera Seshaiiah</b>	Polymeric membranes for drug delivery applications	Working
4	<b>K. Ravi</b>	Physico-chemical properties binary liquid mixtures	Working
5	<b>B.Satyanarayana Reddy</b>	Industrial Pharmaceutical analysis	Working
6	<b>A.Rajashekharan</b>	Pharmaceutical preparation of drugs	Working

**(iii) M.Phil Degree: Completed: 7**

<b>S.No</b>	<b>Name of the Candidate</b>	<b>Topic</b>	<b>Degree</b>	<b>Year</b>
1	<b>C. Nagamani</b>	Solute-Solvent Interactions	M.Phil	1989
2	<b>S. Bahadur Alisha</b>	Thermodynamic study of Binary Liquid Mixtures	M.Phil	1993
3	<b>D. Ansari Begum</b>	Physico-Chemical Studies of Solutions	M.Phil	1994
4	<b>S. Srilalitha</b>	Physico-Chemical Properties of Polymer Solutions	M.Phil	1995
5	<b>B. Nagendra Prasad</b>	Ion-Solvent Interactions	M.Phil	1999
6	<b>K. Vijaya lakshmi</b>	Solute-solvent interactions	M.Phil	2010
7	<b>U. Sajan Kumarji Rao</b>	Preparation and characterization of polymer membranes of liquid mixtures using pervaporation technique.	M.Phil	2013

**(iv) M.Phil Degree: Ongoing: 3**

<b>S.No</b>	<b>Name of the Candidate</b>	<b>Topic</b>	<b>Degree</b>
1	Murali Mohan	Thermodynamic properties of liquid mixtures	Working
2	Praveena M	Physico-chemical properties of liquid mixtures	Working
3	Joshna Devi B	Physico-chemical properties of binary liquid mixtures	Working

**17. Reviewer for Peer-Reviewed Journals**

- J. Chem. Eng. Data (American Chemical Society)
- J. Chem. Thermodynamics (Elsevier Publications – Science Direct)
- Indian Journal of Chemistry (CSIR, New Delhi)

- Ind. J. Pure and Applied Physics (New Delhi)
- Journal of Indian Chemical Society (Kolkata)
- Journal of Applied Polymer Science (U.S.A)
- African Journal of Environmental Science & Tech
- Journal of Advances in Polymer Technology (U.K)

#### **18. Research project evaluator**

- Acted as evaluator for **DST funding projects.**
- Acted as evaluator for **BRNS projects from BARC, Mumbai.**
- Acted as evaluator for **post doctoral fellowship by UGC New Delhi.**

#### **19. Peer reviewer for research theses**

- Acted as an external examiner in **evaluating the research thesis work** carried out by students since 1982 to till date for various universities.

#### **20. Evaluator for Professorship of other university staff**

- Acted as **evaluator for the staff of Kuvempu University, Karnataka.**

#### **21. Radio talk**

- Gave few radio talks and essays on famous scientists at All India Radio, Anantapur.

#### **22. Paper setting**

Andhra University, Waltair, **Visakhapatnam.**

S.V. University, **Tirupati.**

Osmania University, **Hydrabad.**

Kakatiya University, **Warangal.**

Gulbarga University, **Gulbarga.**

Bangalore University, **Bangalore.**

Yogivemana University, **Kadapa.**

#### **23. Special courses attended**

- Attended the **winter school on Polymeric Materials for Engineering Applications** at IIT New Delhi from 12<sup>th</sup> – 24<sup>th</sup> Dec'98.
- Attended the **summer school on Pollution Control in Chemical Process Industry** at DDIT, Nadiad from May 1 to May 12, 1989.
- Attended **“Refresher course on Computer Literacy”** at S.K.University Anantapur from Dec 3 to Dec 31, 1997.
- Attended workshop on **Applications of Internet & Intranet for University College Teachers at S.K.University, Anantapur** from Mar 28 to Mar 31, 2008.

#### **24. Board of Studies:**

- **Chairperson of Board of Studies in Chemistry, S.K.University, Anantapur**

- from 2006 to 2009.
- **Member of Board of Studies in Chemistry, S.K.University, Anantapur** from 1982 to till date.
  - **Member of Board of Studies in Chemistry, Silver Jubilee College, Kurnool** from 2009 to till date.

***DECLARATION:***

**I declare that all the particulars mentioned above are correct and true to the best of my knowledge and belief.**

**Place:**

**Date:**

**Prof M.C.S. SUBHA.**