

1. NAME: Kalpana Mahalingam  
RANK: Associate Professor
  
2. EDUCATION *University of South Florida, Tampa, Florida, USA*  
Ph.D. Mathematics, 2004  
Advisor: Dr.Nataša Jonoska  
  
*University of South Florida, Tampa, Florida, USA*  
M.A. Mathematics, 2001  
  
*Indian Institute of Technology, Madras, India*  
M.Sc. Mathematics, 2000  
  
*University of Madras, Madras, India*  
B.Sc. Mathematics 1998
  
3. EMPLOYMENT HISTORY *Assistant Professor* **Department of Mathematics**  
IITM **2008-2016**  
  
*Post Doctoral Fellow* **Department of Computer Science**  
University of Western Ontario **2004– 2008**  
  
*Graduate Teaching Assistant* **Department of Mathematics**  
University of South Florida **2000-2004**
  
4. HONOURS AND AWARDS
  - 2017- Young Faculty Recognition Award, IITM
  - 2017- Young Scientist Award, Academy of Sciences, Chennai.
  - 2000-2003 Fred L and Helen M Tharp Scholarship recipient, University of South Florida
  - 2000-2004 Graduate Teaching Assistant, University of South Florida
  - Summer 2001-2004 Graduate Research Assistant (Supported through an NSF grant for Dr.Nataša Jonoska), University of South Florida
  - 1999-2000 Graduate Scholarship, Indian Institute of Technology, Madras
  
5. PROFESSIONAL EXPERIENCE Teaching :16 years  
Research: 13 years
  
- 5B. WETLAB EXPERIENCE Testing for Cross hybridizations and secondary structures on theoretically designed DNA strands  
Summer 2003, Department of Chemistry and Bio-Chemistry  
University of Delaware Supervisor: Dr.Jungheui Chen

6. RESEARCH  
SUPERVISION  
SUMMARY

Category	Ongoing	Completed
M.Sc.	0	2
M.Tech	0	1
P.h.d.	8	2
PDF	0	1
Project Associate	0	2

PH.D. SUPERVISION

- Palak Pandoh, (Ongoing).
- Ravi Hirapra, (Ongoing)
- M.Sivasankar, (Ongoing).
- Helda Princy, (Ongoing).
- Anuran Maity, (Ongoing).
- Ujjwal Kumar Mishra, (Ongoing).
- R.Praveen, (Ongoing).
- Gowtham, (Ongoing).
- Somnath Bera, Topic: Parikh q-matrices, (Completed), May 2016.
- Prithwineel Paul, Topic: Splicing systems, (Completed), December 2017.

M.SC. SUPERVISION

- Harshita Rathore, Title of Thesis: Palindromic decomposition of languages, June 2016.
- Manasi Kulakarni, Title of Thesis: On Parikh Matrices, June 2010

M.TECH  
SUPERVISION

Sabayaschi Debnath, Topic: Parikh Matrices and Coloring, (Mar 2016-present).

PROJECT  
ASSOCIATE

WI. Suresh Kumar, Topic: Labelled P-systems with different Data Structures, (April 2015-2016)

PDF

Manasi Kulkarni, Topic: Combinatorics of words, (Feb 2016-Oct 2018)

7A. PROJECTS

Department of Science and Technology, India  
Project titled, "Mathematical Aspects of Computability Models Based on Different Data Structures"  
Fund Sanctioned : Rs. 13.38 lakhs 2015-2018\*  
Principal investigator-

7B. INSTITUTIONAL  
RESEARCH FUNDING

New Faculty Grant, IC and SR, IITM, Chennai, India  
Project titled "Involution codes with application to DNA strand design"  
Fund Sanctioned: Rs. 5 lakhs  
Duration: 07-02-2012 To 30-06-2015  
Principal Investigator

8. PUBLICATIONS –  
SUMMARY

- Articles in Peer-reviewed Journals: 17
- Articles in Peer-reviewed Book Chapters: 4
- Articles in Peer-reviewed Conference Proceedings: 14
- Presentations at Professional Meetings: 3

UNIVERSITY VISITS

Department of Computer Science  
Universiti Sains Malaysia,  
Colloborator: Dr. K.G. Subramanian  
Summer 2010.

9. TEACHING:  
COURSES TAUGHT  
AT IITM

Semester	Courses Taught	TCF
Jan-May 2016	MA1102, MA6230	
Jul-Dec 2015	MA1101	
Jan-May 2015	MA6310	.856
Jul-Dec 2014	MA2130, MA6230	.879, .902
Jan- Apr 2014	MA1060, MA5760	.729,.632
Jul-Dec 2013	MA 2130, MA5540	.838, .669
Jan-May 2013	MA5760, MA6230	.822, .682
Jul-Dec 2012	MA 2020, MA6190	.883,.798
Jan-May 2012	MA1020, MA2020 , MA6008	.808, .721, .960
Jul-Dec 2011	MA 1010, MA6200	.841, .774
Jul-Dec 2010	MA 1010, MA5350	.781, .697
Jan-May 2010	MA1020, MA2040	
Jul-Dec 2009	MA 2020, MA5350	.930,
Jan-May 2009	MA1020, MAPCT	

COURSES TAUGHT  
AT OTHER  
INSTITUTIONS

- [1] Winter 2005, University of Western Ontario, (DNA Computing(grad course))
- [2] 2001-2004, University of South Florida, (Taught Under Grad Courses: College Algebra, Applied Calculus, Precalculus Algebra, Engineering Calculus)
- [3] 2000-2004, University of South Florida, (Have served as a teaching assistant for Calculus, Astronomy, Automata Theory, Trigonometry)

REFEREEING:

Dates: 2005-2016  
Publications: Information Sciences, Natural Computing, Theoretical Computer Science, IJFCS, Proceedigns of DCFS 2006 , Proceedings of DLT 2006, Proceedings of the 12th International Meeting on DNA Computing.

10. OTHER  
ACADEMIC  
RESPONSIBILITIES

Feb-Mar 2016: Member of Discrete mathematics syllabus revision committee.  
Have floated two theory M.Sc. Elective courses.  
Jan- May 2016: MA 1102, Co-ordinator.  
2010-2016: M.Sc / M.Tech Faculty advisor.  
2010 Chair of the Organizing committee of the annual math fest Forays 2010 IIT Madras.  
2005 Conference Organization: Organizing committee of 11th International Meeting on DNA computing.

INSTITUTE 2016-present, Warden,Sharavati, IITM. 2016 Member of the Committee for Credit Transfer  
ADMINISTRATIVE Policy in connection with students going abroad under Semester Exchange programme.  
DUTIES 2015 Member of the B.Tech. Curriculum Task Force.  
IR for GATE and JEE regularly.  
2010, 2013, 2014 Member of the Security Team, Convocation.