

C.V. of Professor M.K.Das

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Date of Birth: 25-09-1951

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New Delhi-110019

Last Position: **Retired Professor, Institute of Informatics & Communication
University of Delhi South Campus,
New Delhi-110021**

Qualification:

1977, Ph.D , Thesis entitled “ The Equilibrium and Oscillation of Rotating Magnetic Stars” (Theoretical Physics), University of Delhi.

1972, M.Sc (Physics), Specialization- Theoretical Astrophysics, University of Delhi.

1970, B.Sc (Physics Honours), University of Delhi.

Post Doc.

1984-85, Post Doctoral Research Assistant under Prof. Ian Roxburgh at Theoretical Astronomy Unit, School of Mathematical Sciences, Queen Mary College, University of London, Mile End Road, London, U.K.

Teaching Experience: 39yrs.;

Post Graduate Teaching:

Since 1996 till date I have been teaching following papers for M.Sc(Informatics) course at Institute of Informatics & Communication, University of Delhi South Campus, New Delhi.

1. Computational Numerical and Statistical Methods [IT-01]
2. Mathematical Foundation for Computer Science [IT-14]
3. Modeling , Simulation & Performance Evaluation [IT-43]
4. Software Engineering [IT-35]
5. Computer Graphics [IT-25]

Undergraduate Teaching:

I taught following papers at undergraduate level i.e., B.Sc(Hons.) Physics at Department of Physics , Sri Venkateswara College, University of Delhi South Campus, New Delhi from 1977-2003.

1. Mathematical Physics
2. Electromagnetic Theory
3. Modern Optics
4. Statistical Physics
5. Computer Oriented Numerical Methods

Research Experience: 39yrs**No. of Research Papers Published/to be published in International/National journals/conferences:**

~70 (List enclosed)

Visitor:

2004-11 Research Institute of Science and Technology, Kinki University, Osaka, Japan.; National Astronomical Observatory, Japan; Department of Astronomy, Tokyo University, Mitaka, Japan.

1998-2003 Institute of Informatics and Communication, University of Delhi South Campus, New Delhi.

1996, School of Mathematical Sciences, Queen Mary and West Field College, London.

1990, School of Mathematical Sciences, Queen Mary and West Field College, London; School of Physical Sciences, University of Sussex, U.K.; Institute d' Astrophysique, University of Liege, Belgium.

Research Areas:

Computational Physics; Complex Systems; Non-Linear Dynamics- Nonlinear Time series Analysis; Theoretical Astrophysics- Stellar Structure & Evolution; Nonlinear Stellar Pulsation; Computational Neurobiology.

Research Supervision:

Ph.D Supervision:

Supervised the Ph.D thesis of the following students of the Department of Physics and Astrophysics, University of Delhi.

1987, OSCILLATION OF DEGENERATE STELLAR MASSES by H.P.Singh

1993, NONLINEAR OSCILLATION IN POLYTROPIC STELLAR MODELS IN THE PRESENCE OF A MAGNETIC FIELD by O.J.Mollikuty

1993, NONLINEAR RADIAL PULSATION IN SELF GRAVITATING MASSES by A.K. Chaudhary

2009, DYNAMICAL SYSTEM APPROACH TO RESTRICTED THREE BODY PROBLEM by P.Narang .

Supervised the Ph.D thesis of the following students of the Department of Applied Sciences, CHITKARA UNIVERSITY, HIMACHAL PRADESH

2016, INVESTIGATION OF CHAOTIC BEHAVIOUR IN SOME BIOLOGICAL SYSTEMS AND CONTROLLING TECHNIQUES by Neha Kumra

PROJECTS FROM DST/UGC/ISRO

1990-1993, **Principal Investigator**, DST project on “EFFECT OF MAGNETIC FIELD ON NONLINEAR OSCILLATION OF STELLAR MASSES AND CONVECTION”

1992-1996, **Principal Investigator**, UGC project on “SOLAR AND STELLAR VARIABILITY”

2001-2004 , **Principal Investigator** ,UGC project on “ PHOTOMETRIC OBSERVATIONS AND MODELLINGH OF STELLAR VARIABILITY”

1997-2000, **Co-Investigator** of the ISRO project on “ SOLAR CONVECTION AND OSCILLATION AND THEIR RELATIONSHIP”

2009-2011 , **Principal Investigator- India-Japan (IJSCP) project**, “Numerical exploration of orbits in Binary Stellar Systems “.

List of other Publications: (Books etc)

(a) DISCRTE MATHEMATICAL STRUCTURES for Computer Scientists & Engineers

-2007 M.K.Das, Narosa Publishing House, New Delhi.

(b) IGNOU course in Astronomy & Astrophysics:

I have written the following units of the Astronomy & Astrophysics course of IGNOU:

1. STELLAR STRUCTURE
2. THE SUN
3. ASTRONOMICAL SCALES
4. THE SOLAR FAMILY
5. STAR FORMATION

IGNOU project on Physics for Navodaya Vidyalay :

I wrote the following units of the course material:

Unit:3 WORK AND ENERGY ,

Unit:12 WAVE-PARTICLE DUALITY AND ATOM

Participation in Conferences/ Seminars:

2016 International Conference on the occasion of Silver Jubilee of Indian Society of Industrial and Applied Mathematics (ISIAM), Sharda University, Noida; Jan28-30.

2014, International Conference on Mathematical modeling and Computer Simulation (ICMMCS), Dec.8-10,2014

2009, Stellar Physics, IUCAA, 11-14th August, Pune.

2007, International Heliospheric Year Workshop, 7-10 May, Nainital.

2006 Nonlinear Phenomenon and Techniques in Physics, IUCAA, Pune, November,2006.

2006 Second National Workshop on Techniques in Applied Mathematics, Calcutta University, Kolkata, June,2006.

2002 Celestial Mechanics and Dynamical Systems, IUCAA, Pune, October,2002.

2001 Automated Data Analysis, IUCAA, Pune, October,2001

1996 A half-Century of Stellar Pulsation Interpretations, Los- Alamos National Laboratory, USA.

1993 IAU Asia Pacific Meeting, IUCAA, Pune, August,1993

1990, Confrontation between Stellar Pulsation and Evolution, Bologna, May, Italy.

1982, IAU General Assembly, Patras, Greece, August,1982

1982, IAU Colloq. Activity in Red Dwarf Flares, 1982, Catania, Italy.

1976 Summer Workshop in Theoretical Astrophysics, Ooty, TIFR-Radio Astronomy Center.