

1. Details of the Teacher/ Academic :

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|-----------------------------------|---|
| Name & Date of Birth : | POORNIMA MITAL, 07/04/1955 |
| Date of Joining in IGNOU: | 13/10/1988 |
| Current Designation : | Professor |
| Pay Scale as on date : | Pay Level 14 |
| Qualifications : | M.Sc. and Ph.D. in Mathematics PGDDE in Distance Education |
| Area of Specialization : | Non-linear Differential Equations |

2. Honour/Award/Fellowship/membership of Professional body/ Statutory body (internal/ external) received by the Teacher/ Academic:

| Name of the recipient, | Honour /Award/ Fellowship name | Agency name /Name of statutory body/ institution/ Apex body | Period |
|-------------------------------|---------------------------------------|--|-----------------------|
| | | School Board, SOET | June 1991-Aug. 1997 |
| | | School Board, SOS | Oct. 1991-Oct. 1993 |
| | | School Board, SOS | Dec. 1995-Dec. 1997 |
| | | School Board, SOS | May 2004-May 2006 |
| | | School Board, SOS | April 2007- till date |
| | | School Board, SOGDS | 2012-2014 |
| | | School Board, SOCIS | 2015-2017 |
| | | School Board, SOSS | July 2018- till date |
| | | Indian Mathematical Society | Life member |
| | | Association of Mathematics Teacher, India | Life member |

3. Books/Book Chapter:

- Co-author/co-editor if any, title, place of publication, publisher, Year, page (no) s, ISBN N

| S.No. | Name of Author1/ Editor 1, & Co- author (s) / Co-editor (s) (if any) | Title of chapter/ book | Place of publication | Publisher | Year | Total Pages | ISBN No. |
|--------------|---|-------------------------------------|-----------------------------|------------------------------------|-------------|--------------------|-----------------|
| 1. | Poornima Mital (Author) K. K. Diwan & M. Mustafa (Editors) | Learning Through Distance Education | New Delhi | Deep & Deep Publications Pvt. Ltd. | 2004 | 14 | 81-7629-542-6 |

4. Research Articles/Publications:

| S.No. | Author/ Co-author (if any) | Title | Name of Journal | Volume | page no. (s) | Year | ISSN No |
|-------|--|---|---|--------|--------------|------|-----------|
| 1. | Poornima Mital O. P. Bhutani | Invariance and Conservation Laws for Physical Systems | J. Mathematical and Physical Sciences | 15 | | 1981 | 0047-2557 |
| 2. | Poornima Mital O. P. Bhutani | On the Similarity Solutions of the Nonlinear Steady State Heat Conduction Equation | Indian J. of Pure and Applied Mathematics | 12/12 | 1497-1502 | 1982 | 2455-0000 |
| 3. | Poornima Mital O. P. Bhutani | On the Solution of Hydrodynamical Equations Via Lie Groups | International J. Of Engg. Science | 21/5 | 555-562 | 1983 | 0020-7225 |
| 4. | Poornima Mital O. P. Bhutani | On the First Integral of Nonlinear Shallow-Membrane Equation | International J. Of Engg. Science | 23/3 | 353-357 | 1985 | 0020-7225 |
| 5. | Poornima Mital O. P. Bhutani | Similarity Solutions of the Equations of Dynamical Metereology Via Symmetry Method | J. of the Meteorological Society of Japan | 64/4 | | 1986 | 0026-1165 |
| 6. | Poornima Mital O. P. Bhutani | Symmetry Method for the Solution of Fourth Order Nonlinear Wave Equations | Proceedings for the International Symposium on Modern Analysis and its Applications | | 379-390 | 1986 | |
| 7. | Poornima Mital O. P. Bhutani G. Chandrasekharan | On the exact Solutions of Nonlinear Differential Equations of Nuclear Engineering System Via Invariant Variational Principles | Int. J. Engg. Science | 26/3 | 243-248 | 1988 | 0020-7225 |
| 8. | Poornima Mital O. P. Bhutani G. Chandrasekharan | On Invariant Solutions of the Generalised Boussinesq Equations | Int. J. Engg. Science | 26/3 | 307-310 | 1988 | 0020-7225 |
| 9. | Poornima Mital O. P. Bhutani Vijay Kumar G. Chandrasekharan | On Invariant Solutions of the Generalised Kd-V Burgers Equations in a Variable Medium-I | Int. J. Engg. Science | 27/8 | 921-929 | 1989 | 0020-7225 |
| 10. | Poornima Mital O. P. Bhutani Vijay Kumar G. Chandrasekharan | On Invariant Solutions of the Generalised Korteweg de Varies-Burger Type Equation-II | Int. J. Engg. Science | 27/8 | 931-941 | 1989 | 0020-7225 |
| 11. | Poornima Mital Dinesh Khattar Arti Kaushik | On Integrals and Invariants for Inviscid, Compressible and Three-Dimensional Flow Under Gravity | Int. J. of Pure and Applied Mathematics | 48/1 | 83-90 | 2008 | 131-8080 |
| 12. | Poornima Mital Dinesh Khattar Arti Kaushik | Chaos in a Bubble Expanding in a Sound Field | Int. J. of Pure and Applied Mathematics | 48/4 | 523-527 | 2008 | 131-8080 |

(Duly authenticated by the Director/ Head of School/ Division/ Unit/Centre / Cell)

5. Presentation/Invited talk/Chair in National or International Seminar/Conference/ Workshops (Please do not mention if it is only participation without presentation)

| S.No. | Author/ Co author (if any) | Title of presentation, /Talk/Lecture | Name of the Organizing institute | Conference/ Seminar/ Workshop | City | Date and Year |
|-------|----------------------------------|---|--|---|--------------|------------------|
| 1. | Co author | Presented paper on "Alternative Approach to the Solution of Non-linear Ordinary Differential Equations of Physical Systems" | Regional Engineering College, Rourkela | Conference | Rourkela | 8-11 Feb., 1980 |
| 2. | Co author | Presented paper on "Group Theoretic Methods for the Solution of Non-linear DE's of Physical System". | I.I.T. Delhi | Symposium on Modern Analysis and its Applications | I.I.T. Delhi | 21-24 Dec., 1983 |
| 3. | Co author | Presented paper on "Similarity Solutions of the Equations of dynamical Meteorology Via Symmetry Method". | I.I.T. Delhi | Symposium on Modern Algebra | I.I.T. Delhi | 2-5 Dec., 1985 |

6. Details of PhD and MPhil Scholars (including those awarded degree):

| S. No. | Name and enrolment no: | Year of registration | Year of completion/ award |
|--------|---------------------------|----------------------|------------------------------|
| 1. | Arti Kaushik 072676247 | July, 2007 | 2014 |

7. Details of Programmes/Courses coordinated/written/edited/translated:

| Name of the Programme | Course Code | Units Self Written | Units Transformed* | Units Vetted (Hindi Translation) | Period |
|--|-------------------|-----------------------------------|----------------------------------|-----------------------------------|-----------|
| Bachelor's Preparatory Programme (BPP) | PMT-01 OMT-101 | – | Units 4, 11, 12 (Three Units) | Units 4, 11, 12 (Three Units) | 1989-1990 |
| | OMT-101 | Units-12, 15, 16 (Three Units) | – | Units-12, 15, 16 (Three Units) | 2004-2006 |

| | | | | | |
|---|----------------------------------|---|---|--|-----------|
| Bachelor's Degree Programme (BDP) | MTE-03 (Course Coordinator) | – | Units-4, 5, 6, 7, 8, 9, 10, 12, 16 (Nine Units) | Units-4, 5, 6, 7, 8, 9, 10, 12, 16 (Nine Units) | 1989-1991 |
| | MTE-08 (Course Coordinator) | – | Units-1 to 17 (Seventeen Units) | Units-1 to 17 (Seventeen Units) | 1989-1991 |
| | MTE-10 (Course Coordinator) | – | Units-5, 6, 7, 8, 12, 13, 14, 15 (Eight Units) | Units-1 to 15 (Fifteen Units) | 1991-1993 |
| | MTE-12 | – | – | Units-1 to 8 (Eight Units) | 1991-1993 |
| | MTE-13 | – | Unit-10 (One Unit) | Unit-10 (One Unit) | 1993-1994 |
| | MTE-14 (Course Coordinator) | – | Units-1, 2, 4, 8, 9, 10 (Six Units) | Units-1, 2, 4, 8, 9, 10, 11, 12, 14 (Nine Units) | 1996-1998 |
| | AST-01 | – | Units-1, 2, 8, 12 (Four Units) | Units-1, 2, 8, 12 (Four Units) | 1998-2002 |
| | AOR-01 | – | Units-4, 7, 10 (Three Units) | Units-1, 2, 3, 4, 7, 10 (Six Units) | 1998-2002 |
| UGC-CBCS | BMTC-132 (Course Coordinator) | Units 6 to 17 (12 Units) | – | – | 2017-2018 |
| Certificate Programme in Teaching of Primary School Mathematics (CTPM) | AMT-01 | Units-12, 13, 16, 17 and Unit-14 (Jointly with Dr. S. Varma) (Five Units) | – | Units-12, 13, 14, 16, 17 (Five Units) | 1993-1995 |
| Master's Programme in Mathematics with Applications in Computer Sciences (MACS) (Programme Coordinator) | MMT-007 (Course Coordinator) | Units-2, 3, 4, 7 (Four Units) | Units-1, 5, 6, 8, 9, 10, 11, 12 (Eight Units) | – | 2004-2006 |
| | MMT-009 (Course Coordinator) | Units-1, 2, 3 and Unit 6 (Jointly with Prof. V. P. Saxena) (Four Units) | Units-4, 5 (Two Units) | – | 2006-2008 |
| | MMT-005 (Course Coordinator) | – | Study guide (6 units) | – | 2006-2007 |
| | MMTE-004 (Course Coordinator) | – | Study guide (5 units) | – | 2008-2010 |
| | MMTP-001 (Course Coordinator) | Project Guide | | – | 2010 |
| | MMT-005 (Course Coordinator) | – | Units 1, 2, 3, 5, 6, 7, 8, 9, 10 (Nine Units) | – | 2018-2019 |

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|---|--|---|---|---|------|
| Advance Diploma in Construction Management/ Advance Diploma in Water Resource (ADCM/ ADWRE) | ET-101 (Mathematics-I) | – | Units-10, 11, 12, 13 (Four Units) | – | |
| Bachelor's of Computer Applications (BCA) | Block-4 of MTE-10 modified to Block-3 of CS-71 | – | Units-12, 13, 14, 15 (Four Units) | – | 1995 |

* Transformation of the unit includes rewriting the content wherever necessary, content, language and format editing, proof reading etc.

Video Programmes

| Course | Title | Developed/Presented | Period |
|--------|---|---|--------|
| MTE-08 | * Let's apply Differential Equations (Both English & Hindi) | Developed and presented both in English and Hindi | 1992 |
| MTE-07 | Double Integration | Presented in Hindi | 1991 |

* Programme was screened in the competition section under the category of '**Best Programme in Sciences, Mathematics and Technology**' in the 9th CEC-UGC Vide festival in Dec., 1996 held at Thirananapuram.

8. Details of Training/Orientation programmes organised/Conducted as Resource Persons

| Agency/Institution which conducted/sponsored the Programme and Venue | Organised/ Conducted | Theme(s) | Duration/Dates |
|--|----------------------|---|---|
| IGNOU RC Bangalore at Bit, Bangalore | Conducted | Orientation of academic Counsellors of Mathematics Electives (MTE- to) | 18-19 March, 2000 |
| IGNOU RC Ahmadabad at Gujarat Guest House | Conducted | Orientation of academic Counsellors of Mathematics Electives (MTE-01 to 14) | 3-4 April, 2000 |
| IGNOU RC Karnal at RC | Conducted | Orientation of academic Counsellors of course AMT-01 | 15-16 April, 2000 |
| UNESCO workshop held at IGNOU | Conducted | Use of Electronic Media in University Science Teaching | March 30 th – April 4 th , 2001 |
| Refresher Programme held at IGNOU | Conducted | Distance Science Education | 10-27 Sept., 2001 |
| IGNOU RC-II at RC-II | Conducted | Orientation of academic Counsellors of AMT-01 and LMT-01 | 27-28 Sept., 2001 |
| UNESCO workshop organised by SOS, IGNOU | Conducted | Use of Electronic Media in University Science Teaching | 20 Dec., 2001 to 02 Jan., 2002 |

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|---|-------------------------|--|-----------------------------|
| IGNOU RC-I at Maiteryi College, Chanakyapuri, Delhi | Conducted | Orientation of Academic Counsellors of Mathematics Electives (MTE-01 to 14). | 30 th Aug., 2005 |
| SOS, IGNOU at Convention Centre, IGNOU | Conducted | Workshop for the Evaluators of CTPM Programme | 27-30 Jan., 2008 |
| SOS, IGNOU at Convention Centre, IGNOU | Organised and Conducted | Orientation programme for the Counsellors of M.Sc. (MACS) programme | 17-18 Nov., 2011 |
| SOS, IGNOU at Convention Centre, IGNOU | Conducted | Orientation and training of CTPM Counsellors | 8-10 March, 2014 |
| IGNOU RC-II at Convention Centre, IGNOU | Conducted | Orientation of Academic Counsellors of Mathematics Electives (MTE-01 to 14). | |

9. Details of Counselling sessions conducted:

| SNo. | Prog. | Course | Place | Dates | Duration | Mode (Specify- Face to Face Radio counselling Teleconferencing Web conferencing Any Other) |
|------|--------------|--|-------------|------------|-------------------------------|---|
| 1 | BDP | Revision and feedback of MTE-07, 08, 09 | EMPC, IGNOU | 17/01/2006 | 5 to 6 P.M. | Radio Counselling |
| 2. | BDP | Mathematical Modelling (MTE-14) | EMPC, IGNOU | 27/03/2006 | 2.30 to 4.15 P.M. | Teleconferencing |
| 3. | BDP | Differential Equations (MTE-08) | EMPC, IGNOU | 10/07/2006 | 1 to 1.45 P.M. | Teleconferencing |
| 4. | BPP | Introduction to Preparatory course in general mathematics PMT-01 | EMPC, IGNOU | 23/08/2006 | 12 to 12.45 P.M. | Teleconferencing |
| 5. | BPP | Orientation of academic counsellors of OMT-101 | EMPC, IGNOU | 17/10/2006 | 10 to 1 P.M. | Teleconferencing |
| 6. | BDP | Second and Higher Order ODEs | EMPC, IGNOU | 19/01/2007 | 2.30 to 3.15 P.M. | Teleconferencing |
| 7. | M.Sc. (MACS) | Induction programme for the students of M.Sc. (MACS) | EMPC, IGNOU | 02/02/2008 | 11.00 A.M. to 1.45 P.M. | Teleconferencing |
| 8. | BDP | Linear Motion Planetary Motion (MTE-14) | EMPC, IGNOU | 22/02/2008 | 5 to 5.45 P.M. 6 to 6.45 P.M. | Teleconferencing |
| 9. | BDP | Second and Higher Order ODEs | EMPC, IGNOU | 21/08/2009 | 5 to 5.45 P.M. | Teleconferencing |
| 10. | BDP | Mathematical Modelling (MTE-14) | EMPC, IGNOU | 20/02/2009 | 5 to 6.45 P.M. | Teleconferencing |

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|-----|--------------|--|--------------------------|-------------|---------------------------------|------------------|
| 11. | BDP | Numerical Analysis I & II (MTE-10) | EMPC, IGNOU | 21/08/2009 | 5 to 6.45 P.M. | Teleconferencing |
| 12. | M.Sc. (MACS) | Project (MMTP-001) | EMPC, IGNOU | 18/09/2009 | 5 to 6.45 P.M. | Teleconferencing |
| 13. | BDP | Mathematical Modelling | EMPC, IGNOU | March, 2010 | 5 to 6.45 P.M. | Teleconferencing |
| 14. | M.Sc. (MACS) | Power Series Solutions to Homogenous Laplace Transform | EMPC, IGNOU | 17/09/2010 | 6 to 6.45 P.M. | Teleconferencing |
| 15. | BDP | Differential Equations (MTE-08) | EMPC, IGNOU | 18/03/2011 | 5 to 5.45 P.M. & 6 to 6.45 P.M. | Teleconferencing |
| 16. | M.Sc. (MACS) | MMTE-004 | EMPC, IGNOU | 16/09/2011 | 5 to 5.45 P.M. & 6 to 6.45 P.M. | Teleconferencing |
| 17. | BDP | MTE-14 | EMPC, IGNOU | 20/04/2012 | 5 to 6.45 P.M. | Teleconferencing |
| 18. | M.Sc. (MACS) | MMTE-004 | EMPC, IGNOU | 21/09/2012 | 5 to 6.45 P.M. | Teleconferencing |
| 19. | BDP | MTE-14 | EMPC, IGNOU | 17/05/2013 | 5 to 6.45 P.M. | Teleconferencing |
| 20. | CTPM | Counselling for AMT-01 Project | SOS, IGNOU | 28/11/2013 | 11.30 to 1.30 P.M. | Face to face |
| 21. | CTPM | Counselling for AMT-01 Project for students at RC Siliguri | e-gyan Kosh centre, EMPC | 15/11/2014 | 10 to 1.30 P.M. | Teleconferencing |
| 22. | CTPM | Counselling for AMT-01 Project | SOS, IGNOU | 18/11/2014 | 10 to 1 P.M. | Face to face |
| 23. | M.Sc. (MACS) | Introduction to M.Sc. (MACS) Programme | EMPC, IGNOU | 19/09/2017 | 12 to 1 P.M. | IRC |
| 24. | M.Sc. (MACS) | About M.Sc. (MACS) Programme | EMPC, IGNOU | 27/11/2018 | 12 to 1 P.M. | IRC |

10. Contribution to IGNOU's corporate life:

| S. No. | Chairperson/ Member of Committee | Name of the Committee | Date/ period |
|--------|------------------------------------|--|---------------------------------------|
| 1. | Founder Member and Joint Secretary | IGNOU Staff Children Development Society | 1992-1995 |
| 2. | Member | IGNOU Teachers Associations (IGNOUTA) | 2000-till date |
| 3. | Chairperson/Member | Various Committees of the School | Formed time-to-time from 2000 onwards |

(Duly authenticated by the Director/ Head of School/ Division/ Unit/Centre / Cell)**11. Administrative position/s held in the University (even as in charge)**

| S. No. | Designation | Period |
|---------------|--------------------|--------------------------------------|
| 1. | Director | 9 th July, 2019 till date |

12. Any other contribution/information

- Participated as an expert in the expert committee meeting held on 5th April, 2006 in SOET, for designing the course BME-31, Engineering Mathematics-II of B.Tech. Mechanical Engineering Programme of IGNOU.
- Representative on the Selection Panel of JEST interview for IGNOU-HRI integrated Doctoral programme in July, 2004 at HRI Allahabad,
- On the panel of JRF interview of centre for Atmospheric Science, I.I.T. Delhi held on 12th October, 2004.
- Participated in the Coordination Committee meeting of IGNOU-HRI integrated Doctoral programme on 8th August, 2004, held in Block-8, IGNOU.

Signature of Teacher /Academic**Signature of Director/ Head**