

Curriculum Vitae

1. **Name in full (in block letters):** **DR. ANUP KUMAR RAJPUT**
2. **Designation:** **Professor and Head,
Department of Elementary Education
Project Coordinator, Early School
Mathematics Programme,**
3. **Department:** **Department of Elementary Education,
NCERT**
4. **Field of Specialization in Master Degree:** **Mathematics, Mathematics Education and
ICTs in Education**
5. **Date of Birth in Christian era:** **29th November 1964**
6. **Academic Qualifications:**

Exam Passed	Year of Passing	Name of board/University
Matriculation	1979	HP Board of School Education
B.Sc.(PCM)	1983	HP University, Shimla
M.Sc. (Mathematics)	1985	HP University, Shimla
M.Phil.(Mathematics)	1987	HP University, Shimla
Ph.D. (Fluid Dynamics)	1992	HP University, Shimla

7. Experience in teaching posts

Items	Post-I	Post-II	Post III	Post IV
Name of the post held	Lecturer in Mathematics	Lecturer in Mathematics	Associate Professor in Mathematics	Professor of Mathematics Head, Department of Elementary Education, NCERT
Name of the Institution	Govt. Post Graduate Degree College, Bilaspur, HP (India)	GSSS , Himachal Pradesh	RIE, Bhopal(NCERT)	NCERT
Nature of Duties	Mathematics teaching to UG and PG courses	Mathematics Teaching to under graduate Classes	Teaching Mathematics to B.Sc. B.Ed., B.Ed.- 2	Heading the department of elementary

			years, M.Sc. and M.Phil. Teaching Computer Science to B.Sc. B.Sc. B.Ed., B.Ed.- 2 years and M.Ed.	education Research, Development of material, training and extension activities related to elementary mathematics teaching and learning
Period(Duration)	2 years	8 years	4 years	16 years

8. Experience in Research, Development, Training and extension education

Items	Post-I	Post-II	Post -III	Post IV
Name of the post held	Assoc. Prof in Mathematics and Head of various departments	Associate Professor of Mathematics	Project Director, Early School Mathematics Programme of MHRD, GoI	Professor of Mathematics Head of the Department
Name of the Institution	Central Institute of educational technology, NCERT	Planning and Monitoring Division, NCERT	Department of Elementary Education, NCERT	Department of Elementary Education, NCERT
Nature of Duties	Research, training and non print material development to support school education Administration of various departments of CIET Coordination of Teachers training and other activities related to Education Satellite (EduSat)	Planning, execution, monitoring and evaluation of NCERT's programmes and activities	Research, Planning and implementation of activities for improvement of mathematics learning in early school classes i.e. Class I and II	Coordination, supervision and conduction of activities related to Elementary Education and SSA
Period(Duration)	11 years	From Oct. 2012 to Oct 2013	From May 2013 till date	Sep. 2015 onward

Area of Specialization: Mathematics, Mathematics Education, Use of Technology (ICTs) in Education

An overview of the work done :

Taught Mathematics to under graduate and post graduate classes (6 years), Taught Mathematics to school students (10 years), oriented teachers and teacher educators on Pedagogy of Mathematics in face to face and distance mode using video conferencing(12 years), Developed media scripts and programmes in mathematics and other areas (8 years), actively involved in imparting Education through Satellite communication (EduSat). Trained thousands of teachers of Mathematics through video conferencing mode. Being a faculty of CIET, actively involved in undertaking research and development, training, extension and dissemination works related to educational media. As a part of dissemination of educational media, oriented various stakeholders at international level (South Asian, African and European countries) on design, development and their utilization among students and teachers. Planned and established sales mechanism for dissemination of media products through non- broadcast mode. Planned and organized *Commonwealth Educational Media Centre for Asia sponsored* orientation programmes for teacher Educators on “applications of EduSat”, “Easy now: Innovative approach in multimedia delivery”. Planned an attachment programme for the participants of Advanced Training Programme of *International Institute of Educational Planning, UNESCO, Paris*. Member of **Asia Science Educator’s Academy 2011, formed by Intel**. International observer and judge for Taiwan International Science Exhibition 2012, Chief Information Officer for e-Governance, Gol 2013. External Examiner for B.Ed. Hons. Programme of University of Mauritius.

Major Researches in Mathematics and Mathematics education:

- a. “Stability of Stratified fluids in Porous Medium with Variable Fluid Viscosity and Medium Permeability,” Jananabha, 20
- b. “Thermosolutal- convective Instability of Stellar Atmosphere in Presence of Suspended Particles,” Journal of Astrophysics and Space Science, 183
- c. “ Thermal – Convective Instability of a Composite Rotating Stellar Atmosphere an Presence of a Variable Magnetic Field, Medium Permeability and Solute Gradient,” Journal of Astrophysics and Space Science, 190
- d. “ Gravitational Instability of a Composite and Rotating Plasma in Presence of a Variable Magnetic Field Through a Porous Medium,” Journal of Astrophysics and Space Science, 187
- e. “ Rayleigh-Taylor Instability of Viscoelastic Fluids with Suspended Particles in Porous Medium in Hydromagnetics,” Czechoslovak Journal of Physics, 42
- f. Thermal convection in Porous Medium in Presence of Suspended Particles,” Journal of Scientific Research, 45
- g. Thermal Convection in Compressible Fluid with Suspended Particles in Porous Medium,” Communicated for publication in Journal of Astrophysics and Space Science.
- h A study on classroom transaction of Science and Mathematics textbooks at Upper Primary , secondary, and Higher secondary stages in the light of NCF-2005’, involved as team member

Major Researches in media Education and use of technology:

- A study of the Impact of ET Scheme of MHRD, contribute as regional coordinator for the state of Andhra Pradesh.
- An Evaluation of the Orientation programme for Primary School Teachers through Teleconferencing (Tele-SOPT)
- Impact of virtual classroom inputs on the students of class 10 studying in tribal schools of Madhya Pradesh.
- “Information and Communication Technologies in Education” a monogram 2014

Some Publications: Books Authored/ Edited

- i. "Basic Mathematics", A Textbook for class XI, VK Publishers, New Delhi 1983
- ii. "Basic Mathematics", A Textbook for class XII, VK Publishers, New Delhi 1983
- iii. "Quantitative Methods and Business Statistics" VK Publishers, New Delhi 1985
- iv. "Towards Media Curriculum," CIET, NCERT 1999
- v. "A Textbook of Mathematics" Class XI, NCERT, 2002
- vi. "A Textbook of Mathematics" Class XII, NCERT, 2003
- vii. "A Textbook of Mathematics" Class XI, NCERT, 2006
- viii. "A Textbook of Mathematics" Class XII, NCERT, 2007
- ix. Edited textbooks for school classes of Madhya Pradesh and Uttarakhand States, 2006-2008
- x. "Teacher's Manual in Mathematics at Higher Secondary Stage, in accordance with NCF-2005, NCERT 2009
- xi. "Bridge course and training package for teachers of Kasturba Gandhi Balika Vidyalyas on the basis of NCERT's textbooks" as member of the development team, NCERT 2009-10
- xii. "Exemplar Problems Books in Mathematics for Classes VII and VIII", NCERT 2009-10
- xiii. "Business Mathematics" for university classes, VK Publishers, New Delhi 2010
- xiv. "An insight into Learning Through Children's Errors in Mathematics at Elementary Stage" Bal Bharati training Center, Delhi 2013
- xv. Reviewed "Math-Magic for class I to V" textbooks of mathematics, NCERT 2013, 2014, 2015
- xvi. Reviewed Textbooks of Mathematics classes I to V for State Institute of Educational Research and Training, Rajasthan, India 2013
- xvii. Reviewed a book on pedagogy of mathematics for D.Ed. programme of Rajasthan, SIERT, Rajasthan
- xviii. "Learning Indicators at elementary stage of school education" NCERT 2014
- xix. Package on CCE at Elementary Stage, NCERT, 2015

Development of Digital Content (for ICT enable learning) for Students and Teachers:

- A package of video programmes in Mathematics for Class XII (53 programmes of half an hour each)
- A package of video programmes in Mathematics for Class XI (35 programmes of half an hour each)
- A package of video programmes in Mathematics for Class X (30 programmes of half an hour each)
- Scripts for video programmes in Vedic Mathematics
- Four Video programmes on Multiplication Tables for students
- Four Audio programmes on formation of Multiplication Tables for students
- Five Video programmes on Mathematical Olympiad
- Two Video Programmes on Mathematics Laboratory
- 30 Video programmes on introduction to NCERT's Textbooks in Sciences, Mathematics, Social Sciences and Languages.

- Virtual Classroom : Live presentation and interaction of Mathematics lessons for teachers and students of Madhya Pradesh through Teleconferencing
- Video programmes on teaching of Mathematics (classroom practices) as per recommendations of National Curriculum Framework, 2005
- Video Programme on biography of Sh. S. Ramanujam, the Great Mathematician of India.
- Video programmes on **Jawaharlal Nehru National Science Exhibitions for Children** organized by NCERT every year which include the overall report of the science exhibitions, selection of innovative exhibits and models, writing write ups and commentary, shooting and finally making the video programmes available to the participants and other stakeholders in the form of CDs and DVDs.(since 2007).

Major Training programmes and workshops organized for In-service teachers and teacher educators in mathematics education and ICTs:

- Training sessions on Teaching aids i.e. mathematics Kit and science kit to international and national visitors to CIET
- 6 days orientation in content enrichment of Mathematics PGTs of Tribal districts of MP(2003)
- 10 days content enrichment of Mathematics PGTs of Goa State (2004)
- 10 days Content enrichment of Mathematics TGTs and PGTs of Daman and Diu(2004)
- Conducted workshops at State Councils of Educational Research and Training and Tribal Welfare Department of Madhya Pradesh State of India on development of Low/ no cost teaching aids and use of Mathematics laboratory (2004-06)
- Conducted 6 days training Programme on “Easy Now : the development of enriched video lessons” in collaboration with Commonwealth Educational Media Centre for Asia -2008
- Conducted 5 days training programme for engineers and technicians on Video Editing Software “Final Cut Pro” in collaboration with Commonwealth Educational Media Centre for Asia -2008
- Organised one day Teleconferencing programme on “Popularization of Science in Schools” through EduSat Teleconferencing. 650 Teachers at thirty four Satellite Interactive Terminals through out the country participated in the programme(2009)
- More than 1000 Primary school teachers and about 1000 Trained Graduate Teachers were oriented at 39 centres of NCERT EduSat Network in two phases(Hindi speaking and non Hindi speaking states). The use of teaching aids and models was also demonstrated which was appreciated by the participants(2010).
- 600 Trained Graduate Teachers oriented through Video Conferencing using EduSat on teaching strategies as per NCF 2005, CCE and use of teaching aids in teaching learning of mathematics at upper primary stage.(2011)
- Conducted workshops for teachers of Mathematics in pedagogy, content enrichment, assessment, use of technology etc.

Training programmes and workshops organized for Pre-service teachers

- Teaching of Mathematics to Students of B.Sc. B.Ed. four year integrated and two year B.Ed (2003-07)
- Associated with various SCERTs and SIEs as resource person for teacher training
- Associated with IGNOU, as material writer and councilor for Bachelor Degree Programme (BDP), Certificate course in teaching of primary school mathematics (CTPM) etc.

Innovative programmes designed and conducted:

- Conducted Virtual Classroom project for students of a state of India (MP) on Teaching of Mathematics, Science and English Language through teleconferencing, 2004
- Workshops for slum children of Bhopal, MP, for fruitful utilization of their summer vacations, 2005
- Provided Academic support and conducted teacher interaction programmes through EduSat, a satellite dedicated for education 2007 onward
- Academic Coordination of EduSat network of CIET, NCERT 2007 onward
- Conducted live TV programmes on Gyan Darshan Channel on various themes which include Computer software open office, creative developments, creative movements etc
- Conducted workshops for children during summer vacations on audio and video programme production, puppet making, and open office software- May-June , 2008, 09, 10 and 11. The major objective was to engage children in creative pursuit .
- Conducted Testing of multi point technology which provides the use of more than one mice at one DeskJet PC with HP in KV's of Delhi

Administrative/ management related posts held:

- **From May, 2007 to May 2011 onward- Head, Media Resources and Extension Division** which looks after all extension activities of Central Institute of Educational Technology including
 - Disseminating CIET's audio, video and multimedia programmes in the form of CDs and DVDs through sales,
 - Coordinating visits of teachers and students from International and National Institutes, conducting workshops for children on various aspects of Educational Technology,
 - Display of CIET material and information about institute's activities at various book fairs and science exhibitions.
- **From July, 2009 to May 2010- Head, Script Division** of CIET which looks into
 - development of scripts for audio and video programmes for children, teachers and teacher educators on all subject areas and issues related to education
 - approving scripts developed by out side agencies and other departments
- **From May 2010 to May 2011 Head, Video Production Division** of CIET which looks after
 - the production of TV programmes on various themes from curricular, co-curricular and extra curricular areas of school education for students, teachers, teacher educators, education administrators and parents
 - Conducting annual All India Festivals of Audio and Video Programmes for Children
- **From May 2011 to April 2012 Head, Script Division and Media Resources and Extension Division** of CIET
- **From May 2012 to Oct. 2012 Head, Media Resources Dissemination Division** of CIET
- **From May 2013 onward , Project Director, Early School Mathematics Programme, an MHRD, Gol project**
- **From Sep 2015 onward, Head Department of Elementary Education, NCERT**

Paper Presentation and participation in International and National Conferences, Seminars and workshops on Education and ICT:

- Presented paper ‘ Education of Disadvantage Group with Special Reference to Hilly Region’ Organised by HPU under Special Assistance Programme of UGC, 1999
- Presented a paper titled “Virtual Classrooms- Reaching unreached” in National conference on educational technology at CIET New Delhi-2006
- Participated in National consultation on Kasturba Gandhi Balika Vidyalaya (KGBV) Scheme, organized by NCERT at Delhi, 2009
- Participated in National Conference on the “Vision of NCERT” organized by NCERT at Delhi, 2008
- Presented paper titled “ Newer Technology and teaching Learning of Science and Mathematics” National Conference on Science and Mathematics Education organized by NCERT at Delhi, 2009
- Participated in National conference on teacher education curriculum in the light of NCF-2005, organized by NCERT at Delhi, 2009
- Presented paper titled “ EduSat- The CIET Experience” at National Conferencing on Perspectives in School Education organized by Atomic Energy Education Society Mumbai, June, 2009
- Member of Core team for “Mobile e- Learning Terminals” a centrally sponsored project conducted at IIT Roorkee, 2008-10
- Presented Key note addresses at National Conferences on various issues related to teacher Education organized by some self financed institutes at Pathankot (Punjab), Noida(UP), Gaziabad(NCR), Kurkushetra (Haryana) and Ladwa(Haryana), 2008-10
- Presented paper titled “Lesson Planning for Science Teaching with reference to NCF-2005 and ICT” in a National Conferencing organized by Subharti University, Meerut 2010
- Participated in 1st Asia Science Educators Academy(ASEA) from **Aug 3 to 6, 2010 in Seoul & Daejeon**, Korea organized by Korea Foundation for the Advancement of Science & Creativity (**KOFAC**), National Science Museum of Korea (**NSM-K**) and **Intel Asia**. Presented the paper “ **Science and Mathematics Education in India**” in this international conference
- Presented a paper and chaired session in **International Conference on “Public Science and Technology Communication- 2010”** organized by Department of Science and Technology, Govt. of India
- Participated in **2011 Taiwan International Science Fair(TISF)** from **February 13–20, 2011** organised by , **National Taiwan Science Education Center and Department of Education of Taipei City Government ,Taipei Municipal Jianguo High School** as **Evaluator and observer**.

International Consultations:

- **Member Asia Science Educators Academy (ASEA)**, Korea, 2010
- **International Observer and Evaluator**, Taiwan International Science Fair, Taiwan, 2011
- **International Consultant** on ICT projects funded by Asian Development Bank
- **Chief Information Officer e-Governance**, Hands on experience, National University of Singapore, Singapore, 2013
- **External Examiner** for B.Ed. Hons. (Mathematics) final year examination (2012 and 2015) of University of Mauritius at Mauritius Institute of Education, Mauritius

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