

## CURRICULUM –VITAE

### Personal Profile:-

**Name** Dr Sonika  
**Father's Name** Shri Rajender Singh  
**Mother Name** Smt. Chandernpati  
**Date of Birth** December 19, 1989  
**Designation** Assistant Professor (on Contractual Basis)  
**Department** Department of Mathematics M.D.University, Rohtak  
**Date of Joining** February 18, 2019  
**Specialization** Algebra, Number theory, Algebraic Coding Theory  
**Phone Number** 9050407312  
**Email** [sonika1495@gmail.com](mailto:sonika1495@gmail.com), [sonika.gf.math@mdurohtak.ac.in](mailto:sonika.gf.math@mdurohtak.ac.in)

### Professional Objective:-

To pursue a challenging and growing career in a firm with innovative environment where I can enhance my skills and give my best for fulfilling the goals of the firm.

### Academic Qualifications:-

Course of study	Examining Authority	Year of Passing
10 <sup>th</sup>	Haryana Board of School Education, Bhiwani (Haryana)	2004
12 <sup>th</sup>	Haryana Board of School Education, Bhiwani (Haryana)	2006
B.A.	Maharshi Dayanand University (M.D.U) Rohtak (Haryana).	2009
M.Sc. Mathematics	Maharshi Dayanand University (M.D.U) Rohtak (Haryana).	2011
Net	CSIR-UGC	June, 2012
Pre-Ph.D.	Maharshi Dayanand University (M.D.U) Rohtak (Haryana).	2013
Ph.D	Maharshi Dayanand University (M.D.U) Rohtak (Haryana).	2019

### **Paper presented in conferences:-**

1. Attended and Presented a paper entitled “**q – Cyclotomic Cosets modulo  $4p^n$** ” in “**International Conference on Innovative Trends in Computing Technology & Mathematica (ITCTM - 2015)**” organized by “**Delhi Institute of Technology & Management, Sonapat (Haryana)**”.
2. Attended and Presented a paper entitled “**Primitive Idempotents in  $FC_{4p^n}$** ” in “**Silver Jubilee International Conference of Interdisciplinary Mathematics, Statistics and Computational Techniques IMSCT 2016 – FIM XXV of Forum For Interdisciplinary Mathematics**” organized by “**Manipal University, Jaipur**”.
3. Attended and Presented a paper entitled “**Minimal Cyclic Codes of Length  $4p^n$  in  $FC_{4p^n}$** ” in “**Haryana Swarna Jayanti National Seminar on Recent Advances in Mathematical Research**” organized by “**Department of Mathematics, Rajiv Gandhi Government College, Saha (Ambala)**”.
4. Attended and Presented a paper entitled “**Explicit Expression of Primitive Idempotents in  $FC_{4p^n}$** ” in “**National Seminar on Recent Development in Mathematical Sciences (NSRDMS - 2017)**” organized by “**Department of Mathematics, M.D. University Rohtak**”.
5. Attended and Presented a paper entitled “**Some Cyclic Codes of Length  $4p^n$  and their Minimum Distance Bound**” in “**International Academy of Physical Sciences on Symbiotic Development of Mathematical, Physical, Chemical and Computational Sciences & Symposium on Recent Advances and Future Directions on Mathematics and Bio – Sciences**” organized by “**Department of Mathematics, Guru Jambheshwar University of Science and Technology, Hisar – 125001(Haryana), India**”.
6. Attended and Presented a paper entitled “**Idempotent Generators of Some Cyclic Codes**” in “**International Conference on Recent Advances in Mathematics (ICRAM - 2018)**” organized by “**Department of Mathematics, Aggarwal College Ballabhgarh, Faridabad (Haryana) India.**”
7. Attended and Presented a paper entitled “**Explicit Expression for Primitive Idempotent Generators of Minimal Cyclic Codes of Length  $4p^n$** ” in “**National Conference Recent Development in Mathematics Modelling and Fuzziology – II ( $M^2FZY$ - II)**” organized by **Department of Mathematics (UIS), Chandigarh University, Mohali, Panjab.**

### **Paper Published:-**

1. Paper entitled “**Explicit Expression of Primitive Idempotent in  $FC_{4p^n}$  and Corresponding Codes**” published in “**Far East Journal of Mathematical Sciences**”.
2. Paper entitled “**Some Cyclic Codes of Length  $4p^n$  and Their Minimum Distance Bounds**” published in “**International Journal of Applied Engineering Research**”.
3. Paper entitled “**Expression for Cyclotomic Cosets and minimum Distance of cyclic Codes of Length  $16p^n$  ”** published in “**International Journal of Research and Analytical Reviews**”.
4. Paper entitled “**Expression for Primitive Idempotent of length  $8p^n$  and Corresponding Codes**” published in “**Journal of Mathematical and Computational Science**”.
5. Paper entitled “**Quantum Codes Over  $Z_p + \xi Z_p$** ” published in “**Advances and Applications in Mathematical Sciences**”.
6. Paper entitled “**Trace – Restricted Cyclic and Constacyclic MDS Symbol – Pair Codes over Nilpotent Chain Rings ”** published in “**Journal of Dalian University of Technology**”.
7. Paper entitled “**Structure and Minimum Hamming Distances of Repeated – Roots Cyclic Codes of Length  $11p^s$  over Finite Fields**” published in “**Journal of Dalian University of Technology**”.

### **Declaration**

I hereby declare that the above mentioned information is correct to best of my knowledge & belief.

(Sonika)