SHALINI GUPTA

CONTACT INFORMATION/CURRENT AFFILIATION

Professor,
Department of Mathematics,
Punjabi University, Patiala-147002
email: shalini@pbi.ac.in
contact no. :(+91) 9888056068

RESEARCH INTERESTS

- Dimension subgroups
- Algebraic structures of finite semi simple group algebras
- Central and non-central codes corresponding to semisimple group algebras

EDUCATION

- M.Sc.(Hons. School) with Gold Medal from Department of Mathematics, Panjab University, Chandigarh, May 1999.
- UGC(NET) in June 1999
- Ph.D. degree under the supervision of Prof. I.B.S. Passi from Indian Institute of Science, Education and Research, Mohali in 2013 with title "The structure of semisimple finite metabelian group algebras"

ADMINISTRATIVE AND ACADEMIC RESPONSIBILITIES

- Coordinator of Five Year Integrated Program in Mathematical and Computing Sciences since July 2021
- Head of Mathematics Department, Punjabi University, Patiala from Dec 24, 2018 to Dec 23, 2021
- Member of Board of studies (Under Graduate and Post Graduate)
- Member A.C.D, Department of Mathematics

MEMBERSHIP OF RESEARCH BODIES

- Life Member of Punjab Academy of Sciences
- Life Member of Ramanujan Mathematical Society
- Life Member of Indian Mathematical Society

REVIEWER OF THE JOURNALS

- Reviewer of Mathematical Reviews

PH.D. THESIS SUPERVISED/SUPERVISING

- Ms. Jasbir Kaur
  Topic: Study of Algebraic and Combinatorial Properties of Group Ring
  Status: Degree awarded on Dec 9, 2021
- Ms. Priya Rani
  Topic: Study of central and Non Central Codes over Semisimple Group Algebras
  Status: Registered on August 21, 2019

SELECTED PUBLICATIONS

(i) Gurmeet K. Bakshi, Shalini Gupta and Inder Bir S. Passi (2011) *S*emisimple metacyclic group algebras, **Proc. Indian Acad. Sci. Math. Sci.** Vol. 121(4), 379-396.

(ii) Gurmeet K. Bakshi, Shalini Gupta and Inder Bir S. Passi (2013) *T*he structure of finite semisimple metacyclic group algebras, **J. Ramanujan Math. Soc.**, 28(2), 141-158.

(iii) Gurmeet K. Bakshi, Shalini Gupta and Inder Bir S. Passi (2015) *T*he algebraic structure of finite metabelian group algebras, **Communications in Algebra.**, Vol. 43(6), 2240-2257.

(iv) Shalini Gupta (2016)*F*inite metabelian group algebras, **International Journal of Pure Mathematical Sciences.** Vol. 17, 30-38.

(v) Shalini Gupta (2016) *T*he fifth dimension subgroup for metabelian 2 groups, **Chinese Journal of Mathematics.** http://dx.doi.org/10.1155/2016/5342926.

(vi) Shalini Gupta, Sugandha Maheshwary (2018) *F*inite semisimple group algebra of a normally monomial group, **International Journal of Algebra and Computation**, Vol. 29(1), 159-177.

(vii) Shalini Gupta, Jasbir Kaur (2019) *O*n structure of $D_5(G)$ for 2-group G, **Gulf Journal of Mathematics**, Vol. 7(3) , 34-46.

(viii) Shalini Gupta, Priya Rani (2022) *C*entral and non central codes of dihedral 2-groups, **Algebra and Discrete Mathematics**, Vol 33(1), 87-98.

(ix) Shalini Gupta, Priya Rani (2022) *C*odes from dihedral 2-groups, **Mathematical Notes**, Vol. 112(6), 885-897.

(x) Shalini Gupta, Jasbir Kaur (2021) *D*imension subgroup conjecture for some p-groups, **Journal of Mathematical and Computational Science**, 11(4), 4497-4517.

(xi) Shalini Gupta, Jasbir Kaur (2022) *S*tructure of some finite semisimple group algebras, **AIP Conference Proceedings**, 2357, 120004.

(xii) Shalini Gupta, Jasbir Kaur (2022) *D*imension subgroup conjecture for groups of class 3. (Communicated)

(xiii) Shalini Gupta, Priya Rani (2022) *C*odes defined over dihedral groups of order $2p^r$, Rend. Circ. Mat. Palermo, II. Ser (2022), DOI:https://link.springer.com/article/10.1007/s12215-022-00805-z.

(xiv) Shalini Gupta, Priya Rani (2022) *B*ounds on distances of certain dihedral 2-groups, **AIP Conference Proceedings**, Vol. 2357, 120003(1-6).

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