पेटेंट कार्यालय
शासकीय जर्नल

OFFICIAL JOURNAL
OF
THE PATENT OFFICE

निर्गमन सं. 41/2025	शुक्रवार	दिनांक: 10/10/2025
ISSUE NO. 41/2025	FRIDAY	DATE: 10/10/2025

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

10th October, 2025

CONTENTS

THE PATENT OFFICE
KOLKATA, 10/10/2025
Address of the Patent Offices/Jurisdictions

The following are addresses of all the Patent Offices located at different places having their Territorial Jurisdiction on a Zonal basis as shown below:-

1	Office of the Controller General of Patents, Designs & Trade Marks, Boudhik Sampada Bhavan, Near Antop Hill Post Office,S.M.Road,Antop Hill, Mumbai – 400 037 Phone: (91)(22) 24123311, Fax : (91)(22) 24123322 E-mail: cgpdtm@nic.in	4	The Patent Office, Government of India, Intellectual Property Rights Building, G.S.T. Road, Guindy, Chennai – 600 032. Phone: (91)(44) 2250 2081-84 Fax : (91)(44) 2250 2066 E-mail: chennai-patent@nic.in ❖ The States of Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu and the Union Territories of Puducherry and Lakshadweep.
2	The Patent Office, Government of India, Boudhik Sampada Bhavan, Near Antop Hill Post Office,S.M.Road,Antop Hill, Mumbai – 400 037 Phone: (91)(22) 24137701 Fax: (91)(22) 24130387 E-mail: mumbai-patent@nic.in ❖ The States of Gujarat, Maharashtra, Madhya Pradesh, Goa and Chhattisgarh and the Union Territories of Daman and Diu & Dadra and Nagar Haveli	5	The Patent Office (Head Office), Government of India, Boudhik Sampada Bhavan, CP-2, Sector –V, Salt Lake City, Kolkata- 700 091 Phone: (91)(33) 2367 1943/44/45/46/87 Fax: (91)(33) 2367 1988 E-Mail: kolkata-patent@nic.in ❖ Rest of India
3	The Patent Office, Government of India, Boudhik Sampada Bhavan, Plot No. 32., Sector-14, Dwarka, New Delhi – 110075 Phone: (91)(11) 25300200 & 28032253 Fax: (91)(11) 28034301 & 28034302 E.mail: delhi-patent@nic.in ❖ The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttaranchal, Delhi and the Union Territory of Chandigarh.		

Website: www.ipindia.nic.in
www.patentoffice.nic.in

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 and The Patents (Amendment) Act, 2005 or by the Patents (Amendment) Rules, 2006 will be received only at the appropriate offices of the Patent Office.

Fees: The Fees may either be paid in cash or may be sent by Bank Draft or Cheques payable to the Controller of Patents drawn on a scheduled Bank at the place where the appropriate office is situated.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :23/09/2025
(21) Application No.202531091172 A
(43) Publication Date : 10/10/2025

(54) Title of the invention : METHOD AND SYSTEM FOR OPTIMISED PRIME NUMBER FACTORIZATION USING ADVANCED ALGEBRAIC STRUCTURES

(51) International classification	:H04L0009300000, G06F0007720000, G06F0017160000, G06F0017100000, H04N0019105000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	: :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
1)Dr. Indu Shukla
Address of Applicant :Assistant Professor, Department of Mathematics, Maharani Janki Kunwar College Bettiah, West Champaran, Pin: 845438, Bihar, India Bihar India
2)Gajendra Pratap Banaj
3)Nohar Kumar Dhiwar
4)Madhvi Shetty
5)Dr. K. Dasu Naidu
6)Dr. Ramnarayan Dewangan
7)Dr. Varsha Damodhar Jadhav
8)Dr. Anushka Ashitosh Patil
9)Praveen Rathod
10)Nadeem Anwer Nisar Ahmed
(72)**Name of Inventor :**
1)Dr. Indu Shukla
2)Gajendra Pratap Banaj
3)Nohar Kumar Dhiwar
4)Madhvi Shetty
5)Dr. K. Dasu Naidu
6)Dr. Ramnarayan Dewangan
7)Dr. Varsha Damodhar Jadhav
8)Dr. Anushka Ashitosh Patil
9)Praveen Rathod
10)Nadeem Anwer Nisar Ahmed

(57) Abstract :
The present invention provides a method and system for optimized prime number factorization using advanced algebraic structures, including groups, rings, lattices, and matrix representations. The method generates candidate factors through algebraic operations, modular arithmetic, and lattice or matrix-based transformations, thereby reducing the computational search space and improving factorization efficiency. The system integrates a pre-processing module for algebraic representation, an optimization engine for candidate generation, a factorization engine for computing factors, and a verification module to ensure correctness and primality. This approach enables accurate, scalable, and high-speed factorization of large integers on classical computing systems, making it suitable for cryptographic and mathematical applications.

No. of Pages : 16 No. of Claims : 7