(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :10/08/2024

(21) Application No.202441060589 A
(43) Publication Date : 23/08/2024

(54) Title of the invention : REALIZATION OF RESIDUE ARCHITECTURE FOR CRYPTOGRAPHY APPLICATIONS

(51) International classification	:G06F0007720000, H04L0009300000, G06F0021600000, G06F0021620000, H04L0009000000
(86) International Application No Filing Date	:NA :NA
(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)Malla Reddy Engineering College
Address of Applicant :Malla Reddy Engineering College Dhulapally post via Kompally Maisammaguda Secunderabad -500100 Secunderabad ---------- ----------
2)Dr. A.Pradeep Kumar
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr. A.Pradeep Kumar
Address of Applicant :Associate Professor H.no:3846, Road number: 9, MIG Phase - II, Vidyut Nagar, BHEL, Hyderabad, 502032. State:Telangana Email ID & Contact Number: pradeepkumar@mrec.ac.in & 7731036533 Hyderabad ---------- ----------
2)P.Sowjanya
Address of Applicant :Associate Professor Flat No:F2, Murali Krishna Residency, Mahesh Nagar, Radhika, ECIL, Hyderabad-500062 State: Telangana Email ID & Contact Number:rishisowjanya@gmail.com& 9701519851 Hyderabad ---------- ----------
3)L.Sailaja
Address of Applicant :Assistant Professor H-No:47-13/2C/P,SR Nilayam,Sri Sai Colony,Chintal,Hyderabad 500054 State:Telangana Email ID & Contact Number: lingam.sailaja@gmail.com& 9059815411 Hyderabad ---------- ----------
4)Mrs.Kondamuri Lakshmi Priyanka
Address of Applicant :Assistant Professor Department of Electronics and Communication Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: Klpriyanka.bvce@bvcgroup.in 9704916278 Amalapuram ---------- ----------
5)Mr.Gidla Sudheer Babu
Address of Applicant :Assistant Professor Department of Electronics and Communication Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: sudheer.bvce@bvcgroup.in 9701111245 Amalapuram ---------- ----------
6)Ms Gosangi Sukanya
Address of Applicant :Assistant Professor Department of Electrical and Electronics Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: avnarayana.bvce@bvcgroup.in 9491386785 Amalapuram ---------- ----------

(57) Abstract :
In modern computing data privacy and encoding are main properties. Because of its security and high circumscribed extent, Elliptical curve cryptography (ECC) is the ultimate cryptographic algorithm method. Moreover, hardware swiftness of cryptographic algorithm is needed to meet the raising speed requirement for concurrent implementations. Modulo decimal units, forward and reverse converters are the major sub blocks of the residue number method. In the present residue numbers systems, the operation of reverse converters depends on measured and unyielding adders. It has less speed and more wastage of power. By examining data conversions and residue descriptions, its proposed a residue Montgomery method for multiplying data pathways among converters and in between the two residue representations. In the design process dual field modulator, I/O converters, mixed radius converters, exponentiation and inversion are used in the same hardware

No. of Pages : 7 No. of Claims : 3