

Application Details

APPLICATION NUMBER	201741018429
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	25/05/2017
APPLICANT NAME	Institute of Aeronautical Engineering
TITLE OF INVENTION	DNA BASED ENCRYPTION SYSTEM AND METHOD THEREOF TO PROVIDE HIGH SECURE AND RELIABLE DATA TRANSMISSION
FIELD OF INVENTION	COMMUNICATION
E-MAIL (As Per Record)	s.saha@cii.in
ADDITIONAL-EMAIL (As Per Record)	s.saha@cii.in
E-MAIL (UPDATED Online)	
PRIORITY DATE	NA
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	25/05/2018

Application Status

APPLICATION STATUS	Application Published
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Patent Search

Invention Title	DNA BASED ENCRYPTION SYSTEM AND METHOD THEREOF TO PROVIDE HIGH SECURE AND RELIABLE DATA TRANSMISSION
Publication Number	21/2018
Publication Date	25/05/2018
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Application Number	201741018429
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Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMMUNICATION
Classification (IPC)	H04L 9/00

Inventor

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Mr Mannepalli Venkata Aditya Nag	Assistant Professor, Department of Mechanical Engineering, Institute of Aeronautical Engineering Dundigal, Hyderabad Telangana India 500043	India	India
Dr Jetty Wilson	Associate Professor, Department of English, Institute of Aeronautical Engineering Dundigal, Hyderabad Telangana India 500043	India	India

Applicant

Name	Address	Country	Nationality
Institute of Aeronautical Engineering	Institute of Aeronautical Engineering, Dundigal Hyderabad,Telangana, India 500 043.	India	India

Abstract:

A DNA based encryption method performed through an algorithm comprises reading binary bits from sender's plaintext and dividing binary bits into 8-bit blocks; encrypting each block of binary bits; generating round 1 key (Kg); sending every 8-bit block of plain-text to the round 1 encryption by key (Kg) using CBC method; generating intermediate cipher text; sender selecting a string of publicly available DNA sequence, ensuring that the receiving side has the information about the used DNA sequence, converting DNA sequence into binary string using binary coding scheme, segmenting binary string into k-bit blocks, encrypting 1st level cipher text; repeating the DNA sequence when the length of DNA sequence is less than the length of the intermediate cipher text, removing the extra bit from the DNA sequence when the case is reversed; generating 2nd level cipher text and generating final cipher text in DNA sequence.

Complete Specification

DESC:FORM - 2
THE PATENTS ACT, 1970 (39 of 1970) AND THE PATENTS RULES, 2003
COMPLETE SPECIFICATION (See Section 10; rule 13)
TITLE OF THE INVENTION

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"FORM 1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)			
				Application No.:			
				Filing Date:			
				Amount of Fee Paid:			
				CBR No.:			
				Signature:			
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)							
2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]							
Ordinary (✓)		Convention ()			PCT-NP ()		
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()		
3A. APPLICANT(S)							
Name in full		Nationality	Country of Residence	Address of the Applicant			
Institute of Aeronautical Engineering		Indian	India	House No.	Dundigal		
				Street City	Hyderabad		
				State	Telangana		
				Country	India		
				Pin code	500043		
3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]							
Natural Person ()		Other than Natural Person					
		Small Entity ()		Startup ()		Others (✓)	
4. INVENTOR(S) [Please tick (✓) at the appropriate category]							
Are all the inventor(s) same as the applicant(s) named above?		Yes ()			No (✓)		
If "No", furnish the details of the inventor(s)							
Name in full		Nationality	Country of Residence	Address of the Inventor			
Mr Paspula Ravinder		Indian	India	House No.	Associate Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering		
				Street City	Dundigal, Hyderabad		
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				Country	India		
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Mr Kothapalli Chiranjeevi		Indian	India	House No.	Assistant Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering		
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Mr Mannepilli Venkata Aditya Nag		Indian	India	House No.	Assistant Professor, Department of Mechanical Engineering, Institute of Aeronautical Engineering		
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Dr Jetty Wilson	Indian	India	House No.	Associate Professor, Department of English, Institute of Aeronautical Engineering	
			Street City	Dundigal, Hyderabad	
			State	Telangana	
			Country	India	
			Pin code	500043	
5. TITLE OF THE INVENTION					
DNA BASED ENCRYPTION SYSTEM AND METHOD THEREOF TO PROVIDE HIGH SECURE AND RELIABLE DATA TRANSMISSION					
6. AUTHORISED REGISTERED PATENT AGENT(S)			IN/PA No.	1937	
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			Mobile No.	9951100088	
7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA			Name	Andhra Pradesh Technology Development & Promotion Centre, Confederation of Indian Industry (CII),	
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			Fax No.	040-27765836	
			E-mail ID	s.saha@cii.in	
8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)					
International application number			International filing date		
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION					
Original (first) application No.			Date of filing of original (first) application		
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT					
Main application/patent No.			Date of filing of main application		

12. DECLARATIONS:

(i) Declaration by the Inventor (s)

(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date:

(b) Signature(s):

(c) Name(s):

Mr Paspula Ravinder

Mr Kothapalli Chiranjeevi

Mr Mannepalli Venkata Aditya Nag

Dr Jetty Wilson

(ii) Declaration by the applicant (s) in the convention country

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date

(b) Signature(s)

(c) Name(s) of the signatory

(iii) Declaration by the applicant(s)

I/We the applicant(s) hereby declare(s) that: -

- o I am/ We are in possession of the above-mentioned invention.
- o The provisional/~~complete~~ specification relating to the invention is filed with this application.
- o The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.
- o There is no lawful ground of objection(s) to the grant of the Patent to me/us.
- o I am/we are the true & first inventor(s).
- o I am/we are the assignee or legal representative of true & first inventor(s).
- o The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).
- o I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.
- o My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.
- o The application is divided out of my /our application particulars of which is given in Paragraph-10 and prays that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.
- o The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

a) Form 2

Item	Details	Fee	Remarks
Complete/ provisional specification)#: Provisional	No. of pages: 5	8000/-	
No. of Claim(s):	No. of pages:		
Abstract:	No. of pages:		
No. of Drawing(s):	No. of pages:		

In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

- b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- c) Sequence listing in electronic form
- d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.
- f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.
- g) Statement and Undertaking on Form 3
- h) Declaration of Inventorship on Form 5
- i) Power of Authority
- j)

Total fee ₹.....in Cash/ Banker's Cheque /Bank Draft bearing No.....Date.....on
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I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this 25th day of May 2017

Signature:

Name: Subhajit Saha

To,
The Controller of Patents
The Patent Office, at Chennai

Note: -

- * Repeat boxes in case of more than one entry.
- * To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- * Tick (✓)/cross (x) whichever is applicable/not applicable in declaration in paragraph-12.
- * Name of the inventor and applicant should be given in full, family name in the beginning.
- * Strike out the portion which is/are not applicable.
- * For fee: See First Schedule";