

ADIKAVI NANNAYA UNIVERSITY

University College of Engineering

Department Of Computer Science and Engineering



Webinar Summary Report

**“Cryptography & Current Trends in Security for
Pervasive Applications”**

June 5th, 2020

Convener: Dr.P.Venkateswara Rao

Webinar Report-“**Cryptography & Current Trends in Security for Pervasive Applications**”

1. Introduction:

About AKNU:

Adikavi Nannaya University vision has a dream of achieving excellence in the near future and becoming a forerunner of designing and initiating novel programmes that are relevant to Godavari districts.

College of Engineering:

University College of Engineering was established since the inception of the university offers two post-graduate programmes, MCA, M.Tech, (CST), and five graduate programmes B.Tech (CSE, IT, ECE, EIE, CIVIL, MECH). UCE also offers Ph.D. programs in the department of CSE.

The UCE excels with the potential of excellent faculty involved in diverse research areas. The objective of UCE is to nurture students to achieve excellence in various fields of technology and to be within the vicinity of industry demands combined with research-oriented thoughts. Students are progressively exposed to a gamut of subjects from core subjects to advance technologies which will make them competent enough in today’s era in the field of engineering technology.

About Department of CSE:

The Department of Computer Science has been established since the time of inception 2006. The Objective of the department is to achieve excellence in various fields of the technology and to be within the vicinity of industry demands combined with research-oriented thoughts.

The Department has good source of energy in the form of allied areas specialization by faculty in different domains like Cloud Computing, Data Science, Cryptography, Software Engineering, Biometrics, Image Processing, Forensics, Data Analytics, IoT etc. Computer Science and Engineering Department is proud to have students who participated in National & State level events like Hackathon and achieved awards from reputed institutions or organizations.

The Department of CSE offers PG programme (Master of Computer Applications) along with the UG programme (B.Tech) with the objective of providing training programmes to the I.T industry. Though the Department has only 12 years of age the Ph.D awardees are above 12 (nearby 14) as on date.

The subjects of MCA and B.Tech are a combination of core and advanced technology which bridges the gap of Academic and Industrial demands. The Department is also proud to raise Adikavi Nannaya University flag worldwide by having the alumni working in USA, Dubai, France etc.

The Department of Computer Science& Engineering has initiated a department club (**Bit**) **Bring in Talent**. The aim of the club is to provide an opportunity to explore the technology, enrich talent & exhibit skills of each and every student under the club this is achieved through organizing different activities like Código Kill the bug, The mind Fizz, Prezento,Talk a lot ,Technizilla,Scibazar,etc.

Objective of the Programme:

The objective of the Webinar on “**Cryptography & Current Trends in Security for Pervasive Application**” is to provide an opportunity for researchers, faculty members, to enhance their knowledge about Cryptography and its importance in online secure communication and also about the current trends in the security with respect to Pervasive Computing. This webinar will provide an interactive platform for the personnel, participants, and delegates.

2. Organizers:

Convener: Dr. P. Venkateswa Rao
Organizing Committee: faculty, Department of CSE

3. Resource Persons:

- 1.Dr.Y.V. Subba Rao, Associate Professor, University College of Hyderabad.
- 2.Dr.N. Rukma Rekha, Associate Professor, University College of Hyderabad.

4. Brief Bio-Data of Resource Persons:

1.Dr.Y.V. Subba Rao, Associate Professor, University College of Hyderabad.

His Areas of Interest includes: Cryptography, Theory of Computation, DBMS, Data Forensics.

Publications: DBLP ,Scopus

Professional Activities includes:

- Worked as a research fellow at (spic science foundation) Chennai Mathematical Institute, Chennai, 1994-97.
- Worked as a lecturer of Mathematics in Bapatla Engineering College, Bapatla, 2000-01.
- Worked as a faculty member in Mathematics in ICFAIICDE.2003-04.
- Coordinator: Entrance Examination 2012-2013, University of Hyderabad, at Anantapur, May 31 - June 8, 2012..
- Coordinator: Two week Summer programme on, Cybersecurity and computer forensics, University of Hyderabad, June 3- 15, 2013.

Contact Address:

SCIS, University of Hyderabad,
Central University P.O,
Hyderabad - 500 046.
INDIA.
Phone: 91-040-23134109
yvsrscs@uohyd.ernet.in

2. Dr.N. Rukma Rekha, Associate Professor, University College of Hyderabad.

Her Areas of Interest include: Object-Oriented Design with UML, Cryptography, Pervasive Computing.

Publications: DBLP Scopus

Professional Experience and Activities:

- Worked as a Lecturer in RVR & JC College of Engineering, Guntur, A.P. (2005-2007)
- Resource Person for National Workshop on Object-Oriented Analysis and Design, Tirupathi, December 2006
- Member of CRSI
- Coordinator: Entrance Examination 2012-2013, University of Hyderabad, at Visakhapatnam, May 31 - June 8, 2012.
- Coordinator: Two week Summer Programme on, Cybersecurity and computer forensics, University of Hyderabad, June3-15, 2013.

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5. Brochure:



ADIKAVI NANNAYA UNIVERSITY
RAJAMAHENDRAVARAM, ANDHRA PRADESH, INDIA - 533296

A WEBINAR
on
CRYPTOGRAPHY
&
CURRENT TRENDS IN SECURITY FOR PERVASIVE APPLICATIONS

ORGANIZED BY
Department of Computer Science & Engineering
University College of Engineering
Adikavi Nannaya University
Rajamahendravaram, Andhra Pradesh

ABOUT THE WEBINAR
Cryptography is the branch of cryptology, which deals with design of algorithms for encryption and decryption i.e., coding and decoding. It mainly consists of three types of algorithms: Symmetric key, Asymmetric key and Message digest algorithms. Single (secret) key is used in symmetric key cryptographic algorithms for encryption and decryption operations. Two keys are involved in asymmetric key cryptographic algorithms, one is private key and another one is public key. The private key should be kept secret where as public key is placed in the public file, which is accessible to the communicating parties. Message digest algorithm is used to generate message digest or finger print of the given message. Symmetric and Asymmetric key algorithms are used for secure communication and message digest algorithm is used to check integrity of the transmitted message. This webinar is useful to know basic concepts of cryptography and its importance in online secure communication.

Wireless devices replace human beings for communication, connection, computing, collaboration etc. Now a days either in house or outside the house we are under surveillance of some devices. Day to day usage of mobile devices is increased for multiple applications at the same time number of attacks are also in rise. Generally, number of devices get connected and leave the pervasive device either with permission or without permission. Hence, there is a need to know how many devices are connected with our device, whether these are authentic connections or not and also check security of the connection etc. How authentication, confidentiality, integrity & non-repudiation should be achieved? As per the security concerns, software plays a vital role than hardware. The application developers have to develop applications with minimum vulnerabilities and maximum security features. This webinar is useful to know about current trends in the security with respect to pervasive applications.



Webinar Date & Time
5th June 2020, 04:00 PM

Webinar Report-“Cryptography & Current Trends in Security for Pervasive Applications”

INAUGURAL ADDRESS
PROF.M. JAGANNADHA RAO
VICE CHANCELLOR

VALEDICTORY ADDRESS
PROF.B. GANGA RAO
REGISTRAR

OPENING REMARKS
Dr.V. PERSIS
PRINCIPAL
UNIVERSITY COLLOEGE OF
ENGINEERING

SPEAKER
DR. Y. V. SUBBA RAO
ASSOCIATE PROFESSOR
UNIVERSITY OF HYDERABAD

SPEAKER
DR. N. RUKMA REKHA
ASSOCIATE PROFESSOR
UNIVERSITY OF HYDERABAD

COORDINATOR
DR. P. VENKATESWARA RAO
HEAD
DEPARTMENT OF CSE

WEB LINK FOR FREE REGISTRATION:
<https://forms.gle/yZB9GRx78iZjpnqX9>
E-CERTIFICATE WILL BE ISSUED TO ALL THE PARTICIPANTS

Webinar Report-“Cryptography & Current Trends in Security for Pervasive Applications”

6. Programme Sheet:

Program Schedule from 5th June 2020, 4.00 PM to 6.00 PM

S.No	Time	Program
1	4.00 PM	Welcome Note by Dr.P.Venkateswara Rao, Coordinator of the Webinar, Department of CSE, AKNU
2	4.02 PM	Inaugural Address by Prof. M. Jagannadha Rao, Honorable Vice-Chancellor, AKNU
3	4.07 PM	Opening remarks by Dr. V. Persis, Principal, University College of Engineering, AKNU
4	4.09 PM	1 st session speaker introduction by Mrs .P. S. V. D. Gayatri, Assistant Professor, AKNU
5	4.10 PM	Session-1 on Cryptography by Dr. Y.V. Subba Rao, Associate Professor, UoH
6	4.59 PM	2 nd session speaker introduction by Mrs. T. T. Jyothi Kiran, Assistant Professor, AKNU
7	5.00 PM	Session-2 on Current Trends in Security for Pervasive Applications by Dr. N. Rukma Rekha, Associate Professor, UoH
8	5.50 PM	Valedictory Address by Prof.B. Ganga Rao, Registrar, AKNU
9	5.55 PM	Vote of thanks by Mrs. A. Mutya Sirisha, Assistant Professor, AKNU
10	6.00 PM	End of the Program

7. Lecture-I Details: Dr.Y.V.Subba Rao, Associate Professor, University College of Hyderabad.

Abstract:

Cryptography is the branch of Cryptology, which deals with the design of algorithms or encryption and decryption i.e., coding and decoding. It mainly consists of three types of Algorithms – Symmetric key, Asymmetric key, and message digest algorithms. a single (secret) key is used in Symmetric key Cryptographic algorithms for encryption and decryption operations. Two keys are involved in asymmetric key Cryptographic algorithms one is the private key and the other one is a public key. The private key should be kept secret whereas a public key is placed in the public file, which is accessible to the communicating parties. Message-Digest Algorithm is used to generate the message digest or figure print of the given message. Symmetric and Asymmetric key algorithms are used for secure communication and message digest algorithms are used to check the integrity of the transmitted message.

8. Lecture II Details: Dr.M.Rukma Rekha, Associate Professor, University College of Hyderabad.

Abstract:

Wireless Devices replace human beings for communication, connection, computing, collaboration, etc. Nowadays either in a house or outside the house, we are under surveillance of some devices. Day to day usage of mobile devices is increased for multiple applications at the same time no attacks are also on the rise. Generally, no devices get connected \and leave the pervasive device either with permission or without. Hence, there is a need to know how many devices are connected with our device, whether these are authentic connections or not, and also check the security of the connection, etc. How authentication, Confidentiality, integrity, nonrepudiation, should be achieved? As per security, concern software plays a vital role than hardware. The Application developers have to develop applications with minimum vulnerabilities and maximum-security features.

9. Number of participants: 388 participants were registered from 8 different states and various places of India.

S.No	State	Count
1	Andhra Pradesh	317
2	Telangana	11
3	Bihar	25
4	Tamilnadu	9
5	Gujarat	3
6	Uttar Pradesh	3
7	Tripura	1
8	West Bengal	1
9	Various Placed of India	18
Total		388

10. Publications of the Seminar/ Conference: Nil

11. External funding: Nil

12. The outcome of the Event: 1: The Participants can enhance knowledge on the subject of Cryptography and Security with current trends.

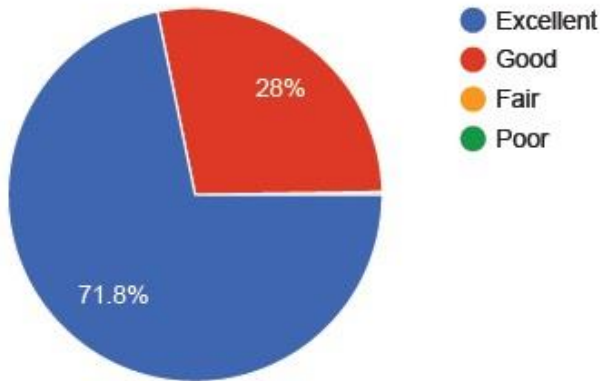
2. Research Scholars can utilize this webinar for their research & Security Applications.

13. Feedback Report: As the feedback form is linked with the automatic generation of e-Certificates. The Total Responses were 372. The Feedback Reports for the two sessions were displayed below.

Feedback report of Session-I:

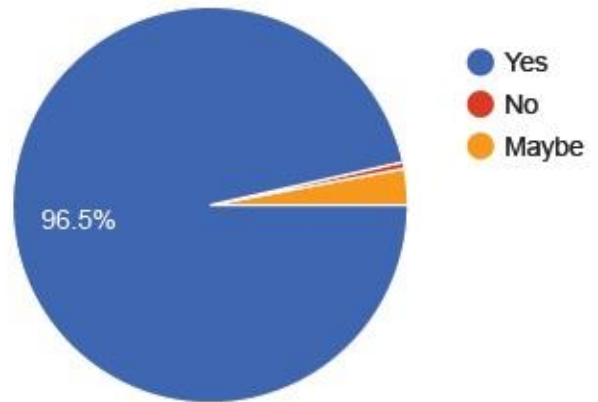
i) The speaker was knowledgeable

372 responses



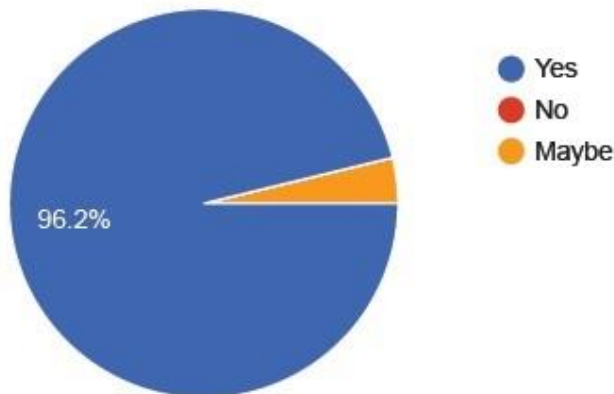
ii) The purpose of the webinar was met

372 responses



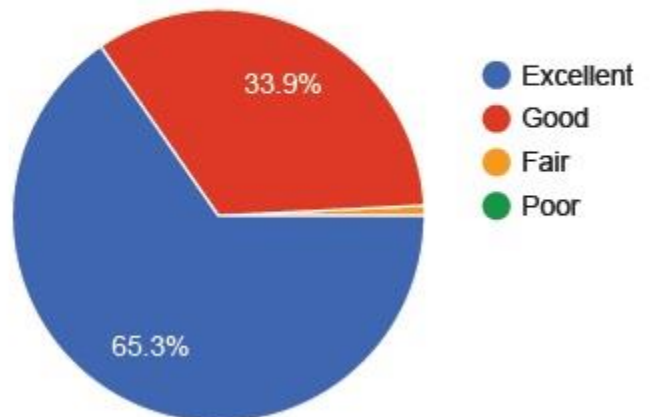
iii) My expectations of the webinar were met

372 responses



iv) This webinar was well organized

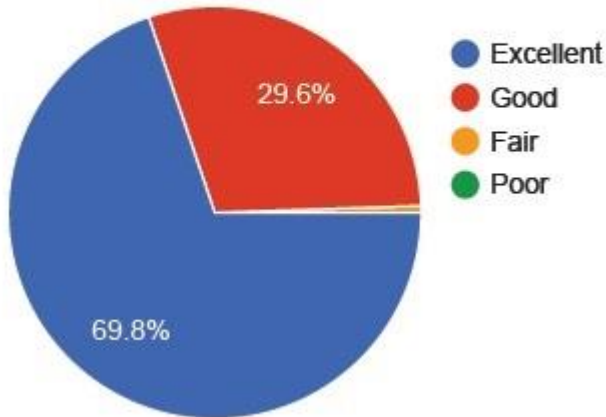
372 responses



Feedback report of Session-II:

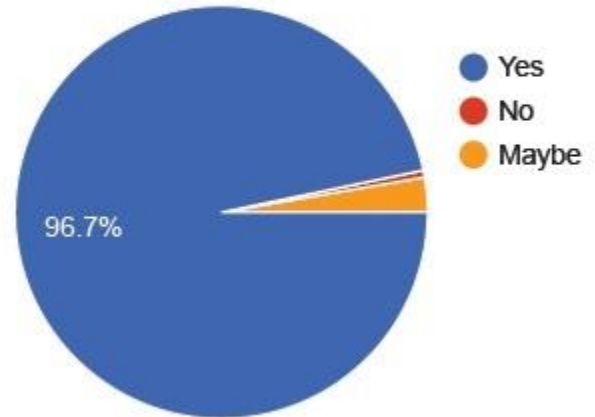
i) The speaker was knowledgeable

372 responses



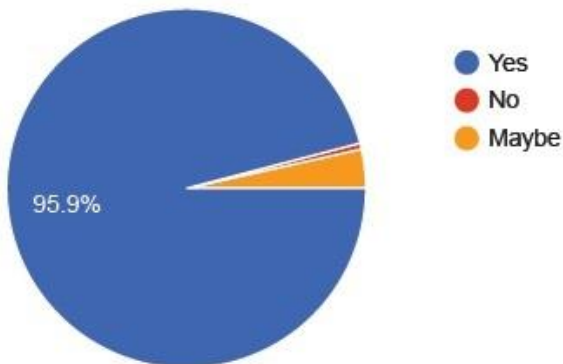
ii) The purpose of the webinar was met

372 responses



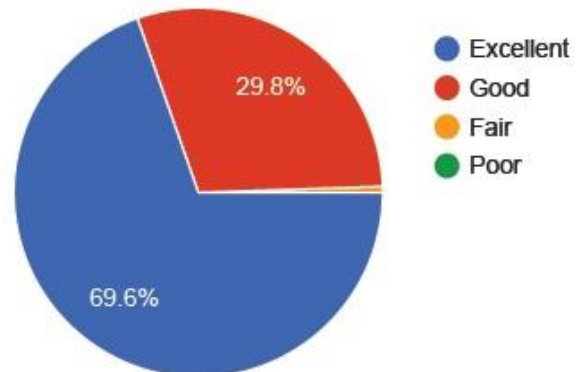
iii) My expectations of the webinar were met

372 responses



iv) This webinar was well organized

372 responses

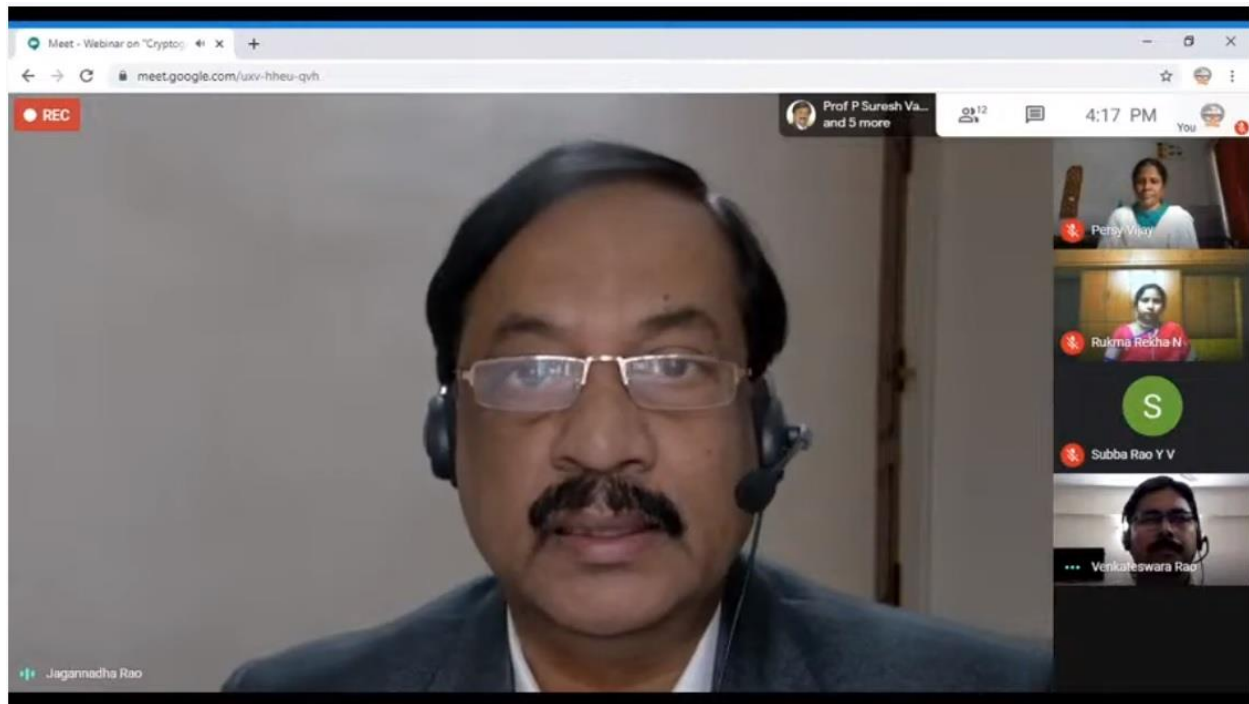


14. e-Certificate:



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15.Photo Gallery with captions:



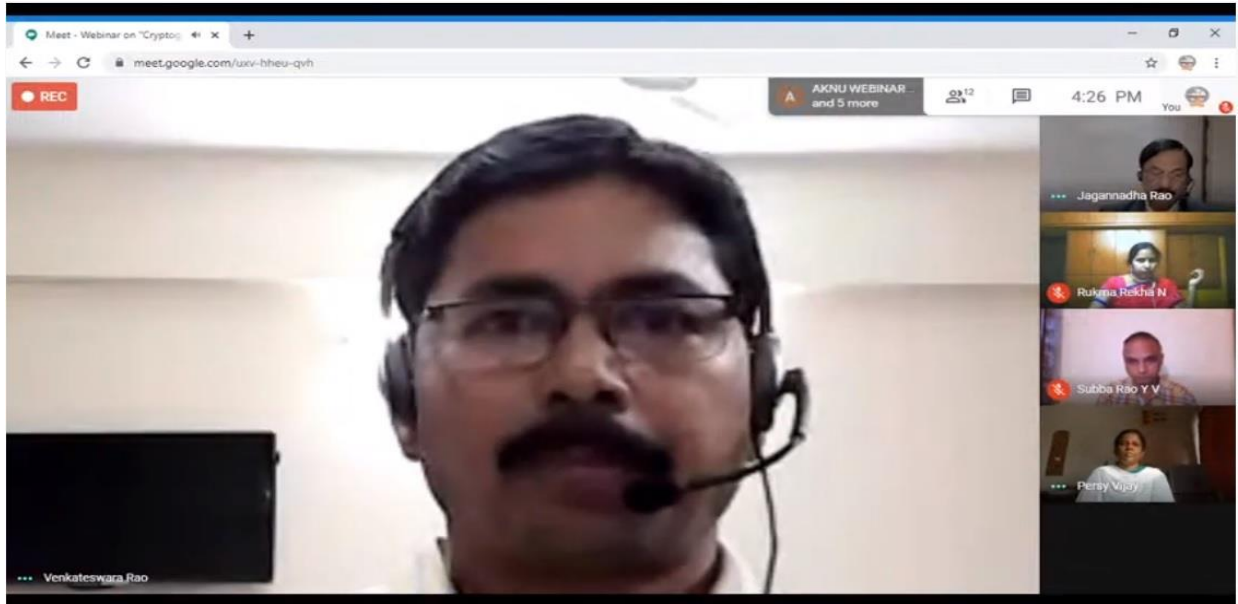
Webinar on "Cryptography and current Trends in Security for Pervasive Applications"

1,525 views · Streamed live on Jun 5, 2020

60 2 SHARE SAVE ...

Honorable Vice-Chancellor of Adikavi Nannaya University, Prof M.Jagananadha Rao, inaugurated the Webinar with his esteemed message. and conveyed his salutations to the participants.

Webinar Report-“Cryptography & Current Trends in Security for Pervasive Applications”

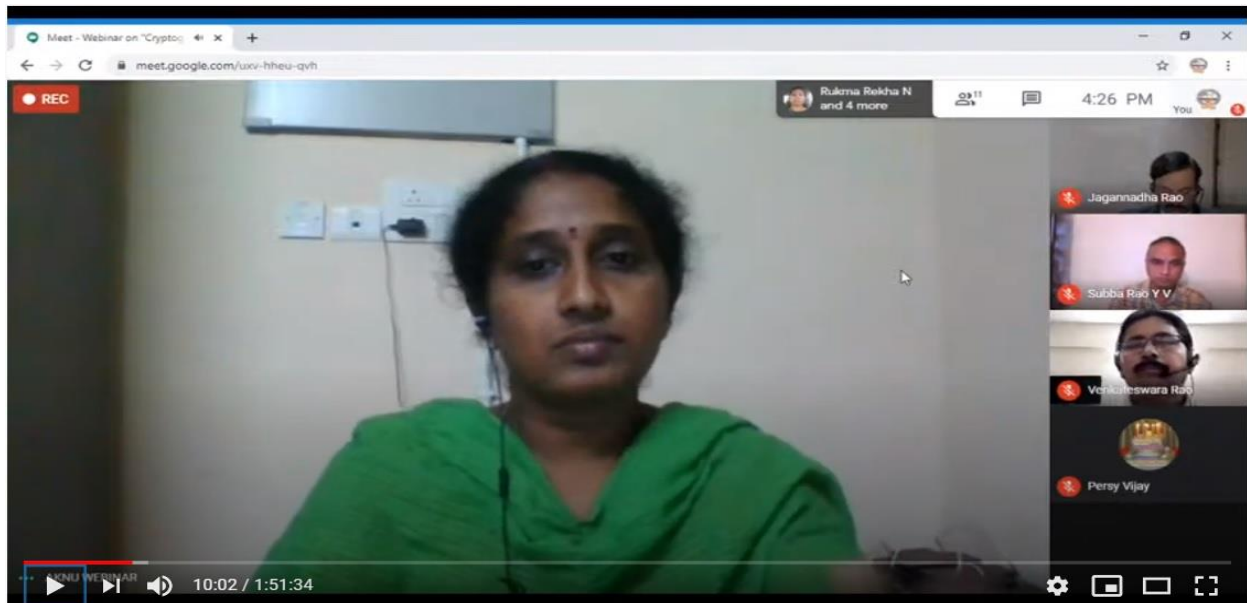


Webinar on "Cryptography and current Trends in Security for Pervasive Applications"

1,525 views • Streamed live on Jun 5, 2020

60 2 SHARE SAVE ...

The Co-convener of the Webinar Dr.P.Venkateswara Rao, Head of the Department, Computer Science & Engineering, Adikavi Nannaya University, addressed the participants with his valuable words and conveyed his best wishes to the participants.



Webinar on "Cryptography and current Trends in Security for Pervasive Applications"

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60 2 SHARE SAVE ...

Introduction to Dr.Y.V.Subba Rao, Resource Person was done by Mrs.P.S.V.D.Gayatri, Assistant Professor, Department of Computer Science Engineering, College of Engineering, Adikavi Nannaya University, and requested the resource person to handover the session-I.

Webinar Report-“Cryptography & Current Trends in Security for Pervasive Applications”

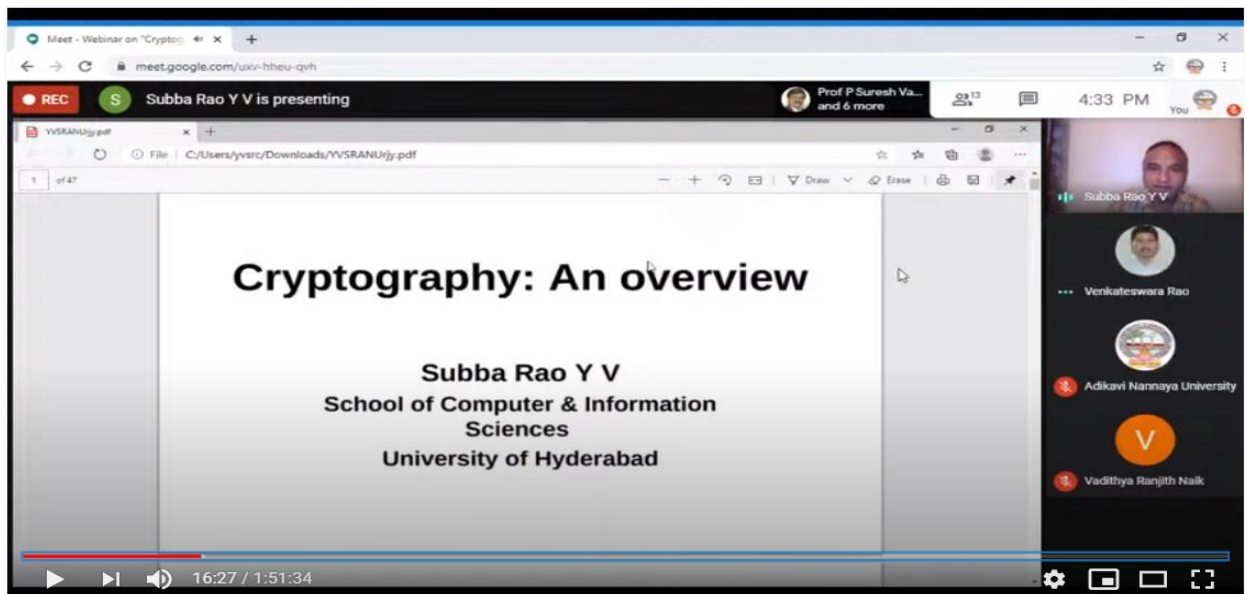


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60 2 SHARE SAVE ...

Session-I The topic “*Overview of Cryptography and its Algorithms and Security Challenges*” was commenced by Dr.Y.V.Subba Rao.



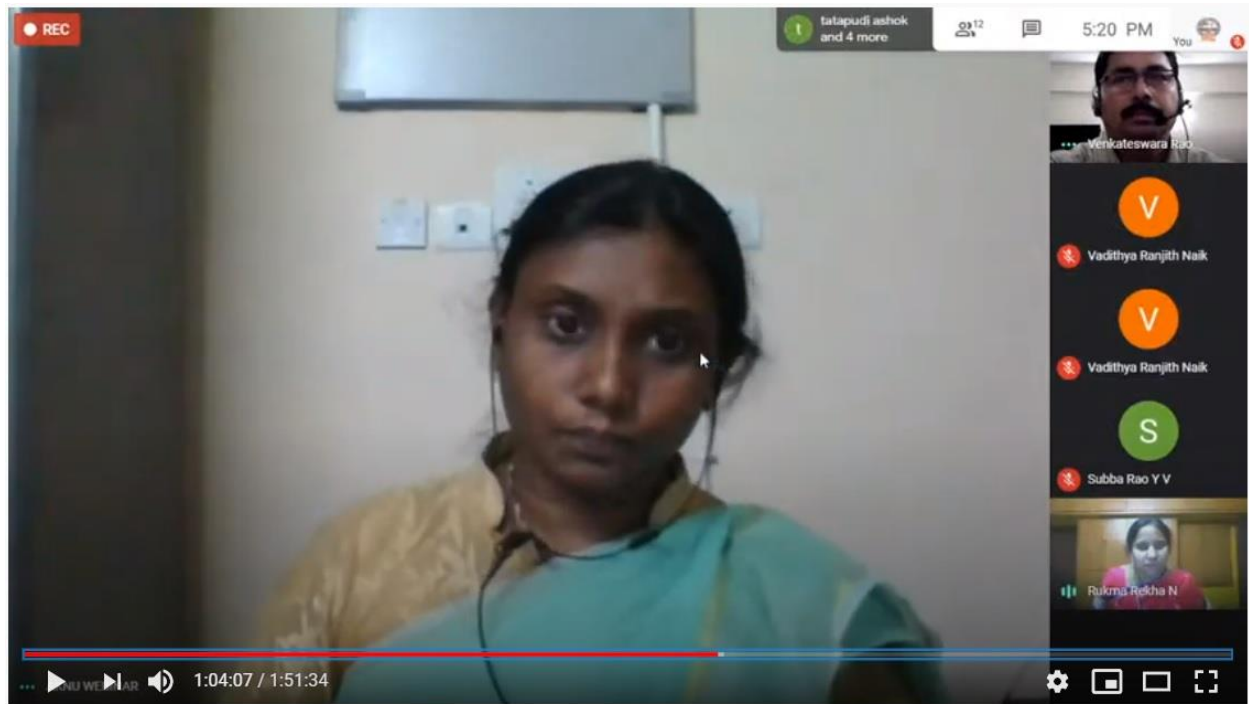
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60 2 SHARE SAVE ...

A presentation view by Dr.YV.Subba Rao on Cryptography and its Security Challenges.

Webinar Report-“Cryptography & Current Trends in Security for Pervasive Applications”



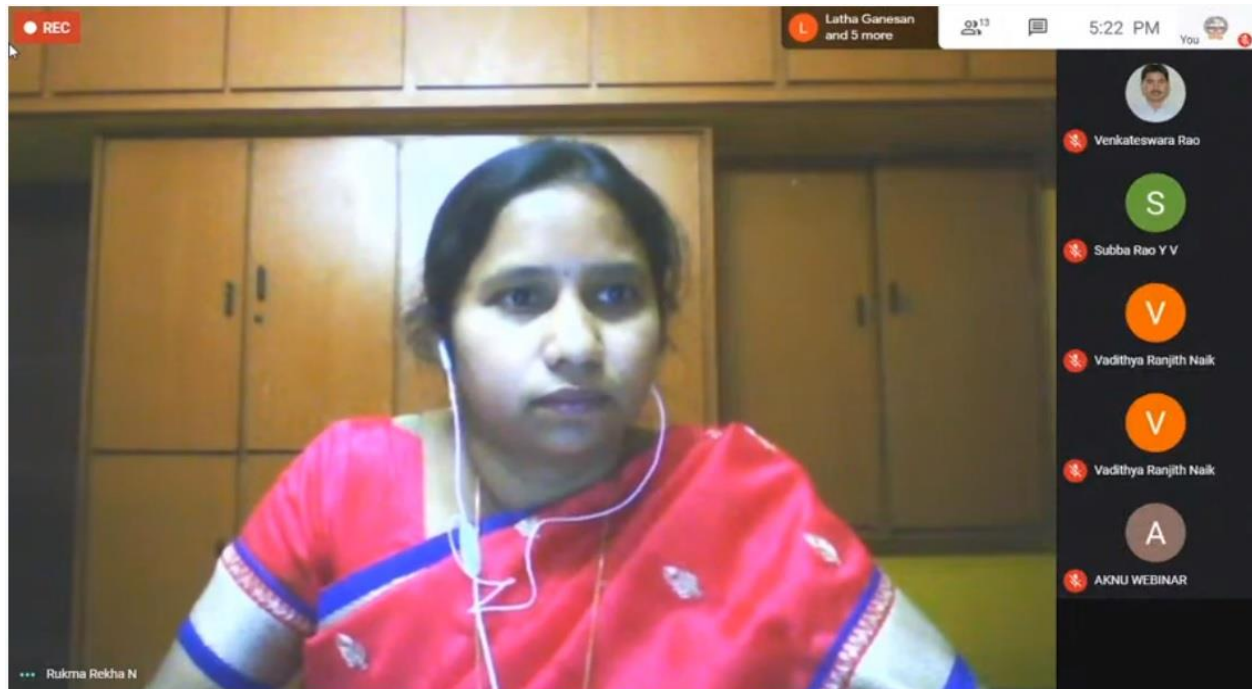
Webinar on "Cryptography and current Trends in Security for Pervasive Applications"

1,525 views • Streamed live on Jun 5, 2020

60 2 SHARE SAVE ...

Introduction to Dr.Rukma Rekha was presented by Mrs.T.T.Jyothi Kiran, Assistant Professor Department of CSE, University College of Engineering, Adikavi Nannaya University, and appealed Dr.Rukma Rekha to commence the Session-II.

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Session-II was commenced by Dr.N.Rukma Rekha on *“Current Trends in Security for Pervasive Applications.”*



A presentation view Dr.N.RukmaRekha on Current Trends in Security for Pervasive Applications.

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The concluding remarks of the Webinar were given by Mrs.A.Mutya Sirisha, Assistant Professor, Department of CSE, Adikavi Nannaya University.

16. Paper Clippings:



A Paper report on Webinar on “Cryptography and Current Trends in Security for Pervasive Applications”, Conducted by the Department of Computer Science & Engineering, College of Engineering, Adikvai Nannaya University report dated on 06-June-2020 in Endau paper-East Godavari District.