D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - JUNE-JULY 2025

Faculty Achievements/ Participation :

1.Dr.Shantri Guru and Mrs. Nilam Patil, Assistant Professor of D.Y.Patil College of Engg Akurdi has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Quantum Computing and NextGen AI: Pioneering Future of Technology at DR. D. Y. PATIL INSTITUTE OF TECHNOLOGY. from 23/06/2025 to 28/06/2025.

2.Ms.Supriya Sathe participated in short term training programme conducted by NITTTR Extension Pune from 09/09/2025 to 13/06/2025

3.Dr.Viashali Kolhe and Dr.Dipalee Rane has successfully completed One Week Faculty Developement Program on INTELECT: INNOVATION IN TECHNOLOGY, LEARNING & COMPUTING TRENDS Sponsored by Swami Logipool Infotech, Pune & organized by Department of Computer Engineering. Shri Chhatrapati Shivaji Maharaj College of Engineering Nepti Ahilyanagar. from 26/06/2025 to 01/07/2025

ATAL/2025/1750069509

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi -110070

AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Mrs. Nilam Patil, Assistant Professor of D.Y.Patil College of Engg Akurdi has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Quantum Computing and NextGen AI: Pioneering Future of Technology at DR. D. Y. PATIL INSTITUTE OF TECHNOLOGY. from 23/06/2025 to 28/06/2025.

RAJESH DATTATRAYA BHARATI
Associate Professor Level (AICTE Institute), Coordinator
DR. D. Y. PATIL INSTITUTE OF TECHNOLOGY.

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

National Institute of Technical Teachers Training and Research, Bhopal

Certificate

Ms. Supriya Sathe
D. Y. Patil COE, Akurdi, Pune

Sustainability and Green Technologies in Engineering Curriculum

NITTTR Extension Centre Pune

Coordinator

13/06/2025

AHMEDNAGAR JILHA MARATHA VIDYA PRASARAK SAMAJ'S
SHRI CHHATRAPATI SHIVAJI MAHARAJ
COLLEGE OF ENGINEERING, NEPTI, AHILYANAGAR

LOGIPOOL INFOTECH

Certificate

OF COMPLETION

This is certify that Mr./Ms. Dr Vaishali Kolhe From
D Y Patil College of Engineering
Akurdi Pune
has Successfully completed One Week Faculty Developement Program on

INTELECT:
INNOVATION IN TECHNOLOGY, LEARNING & COMPUTING TRENDS

Sponsored by Swami Logipool Infotech, Pune & organized by Department of Computer Engineering, Shri Chhatrapati Shivaji Maharaj College of Engineering Nepti ,Ahilyanagar.

from 26/06/2025 to 01/07/2025

Mr.Shivaji Kute
CEO ,Logippol Infotech Pune

Prof.Ghadage R.A.
Event Co-Coordinator

Prof.Vidhate S.P.
Event Coordinator
Head of Department

Dr.Y.R.Kharde
Principal SCSMCOE

Made for free with Certify'em

AHMEDNAGAR JILHA MARATHA VIDYA PRASARAK SAMAJ'S
SHRI CHHATRAPATI SHIVAJI MAHARAJ
COLLEGE OF ENGINEERING, NEPTI, AHILYANAGAR

LOGIPOOL INFOTECH

Certificate

OF COMPLETION

This is certify that Mr./Ms. Dr Mrs Dipalee Divakar Rane From
D.Y.PATIL COLLEGE OF
ENGINEERING AKURDI PUNE
has Successfully completed One Week Faculty Developement Program on

INTELECT:
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Head of Department

Dr.Y.R.Kharde
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Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey
Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

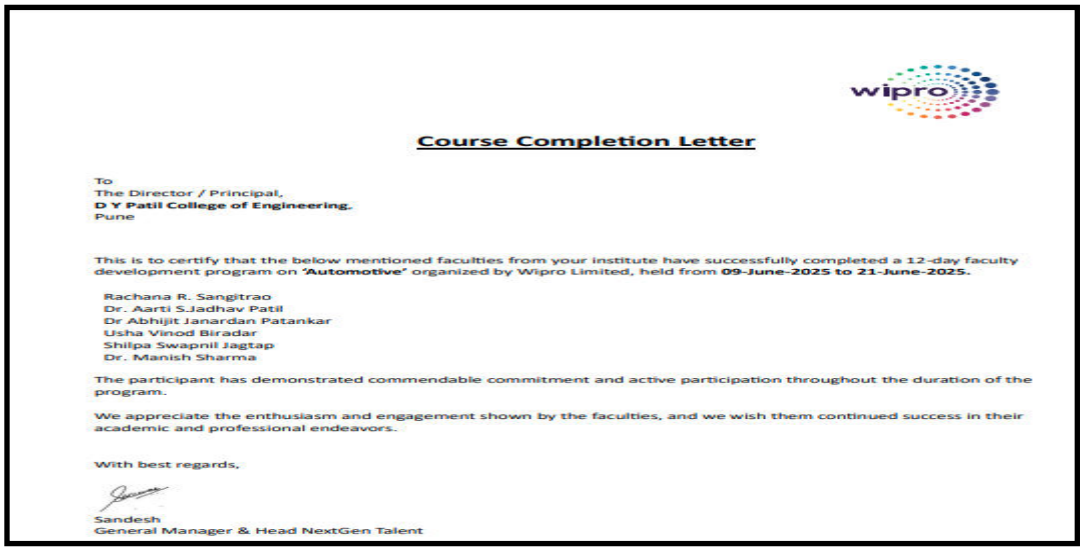
NEWS LETTER - JUNE-JULY 2025

Faculty Achievements/ Participation :

4.Mrs.Dhanashree Phalke has participated in the National Level online workshop on “Application Development with AI and Essential Skills ” organized by Trinity college June 23 to June 27, 2025**.**

5.Ms.Supriya Sathe, Ms.Pooja Bhondve and Ms.Sonal Mohite have participated in Two Week Online Faculty Development Program on “Unlock The Power of AI in Education and Research”, organized by the First Year School of Engineering & Technology, Pimpri Chinchwad University, Sate, Maval, Pune, held from 14th July 2025 to 25th July 2025.

6.Dr.Abhijit Patankar has successfully completed a 12-day faculty development program on ‘Automotive’ organized by Wipro Limited, held from 09-June-2025 to 21-June-2025.



Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

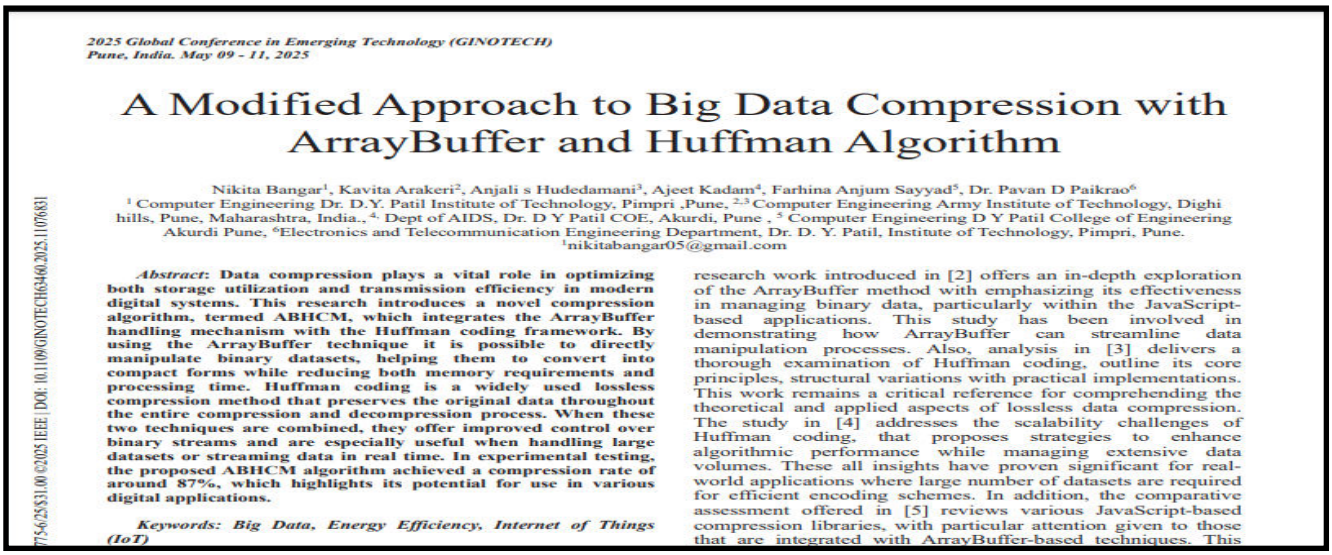
NEWS LETTER - JUNE-JULY 2025

Faculty Achievements/ Participation :

7.Ms. Farihna Sayyad has published the paper on title “A Modified Approach to Big Data Compression with ArrayBuffer and Huffman Algorithm ”, in IEEE

8.Ms. Farihna Sayyad has published the patent on title “Evaluating the effectiveness of multifactor authentication online protecting sensitive data ”

9.Ms.Nilam Patil has attended 6 days FDP on “AI in Cyber security 5.0 -Trends ,Techniques and Threat Intelligence “ from 21th -26th July 2025. Organized by MIT academy of Engineering Alandi



2025 Global Conference in Emerging Technology (GINOTECH)
Pune, India. May 09 - 11, 2025

A Modified Approach to Big Data Compression with ArrayBuffer and Huffman Algorithm

Nikita Bangar[1], Kavita Arakeri[2], Anjali s Hudedamani[3], Ajeet Kadam[4], Farhina Anjum Sayyad[5], Dr. Pavan D Paikrao[6]
[1] Computer Engineering Dr. D.Y. Patil Institute of Technology, Pimpri ,Pune, [2,3] Computer Engineering Army Institute of Technology, Dighi hills, Pune, Maharashtra, India., [4] Dept of AIDS, Dr. D Y Patil COE, Akurdi, Pune , [5] Computer Engineering D Y Patil College of Engineering Akurdi Pune, [6]Electronics and Telecommunication Engineering Department, Dr. D. Y. Patil, Institute of Technology, Pimpri, Pune.
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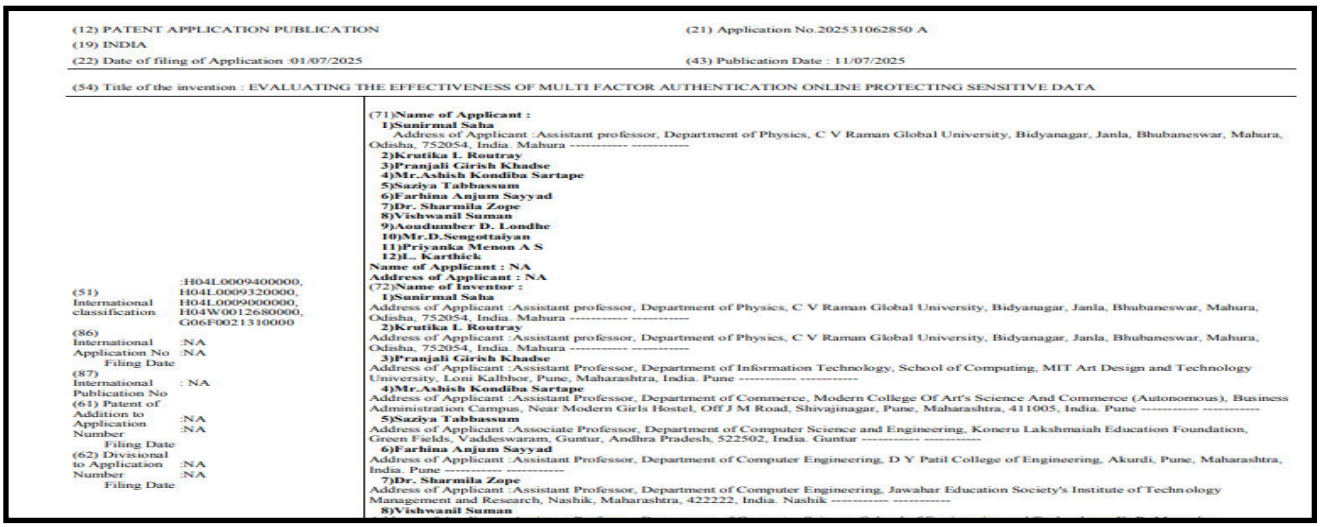
979-8-3315-6525-3/25/$31.00 ©2025 IEEE | DOI: 10.1109/GINOTECH63460.2025.11076831

***Abstract*: Data compression plays a vital role in optimizing both storage utilization and transmission efficiency in modern digital systems. This research introduces a novel compression algorithm, termed ABHCM, which integrates the ArrayBuffer handling mechanism with the Huffman coding framework. By using the ArrayBuffer technique it is possible to directly manipulate binary datasets, helping them to convert into compact forms while reducing both memory requirements and processing time. Huffman coding is a widely used lossless compression method that preserves the original data throughout the entire compression and decompression process. When these two techniques are combined, they offer improved control over binary streams and are especially useful when handling large datasets or streaming data in real time. In experimental testing, the proposed ABHCM algorithm achieved a compression rate of around 87%, which highlights its potential for use in various digital applications.**

Keywords: Big Data, Energy Efficiency, Internet of Things (IoT)

research work introduced in [2] offers an in-depth exploration of the ArrayBuffer method with emphasizing its effectiveness in managing binary data, particularly within the JavaScript-based applications. This study has been involved in demonstrating how ArrayBuffer can streamline data manipulation processes. Also, analysis in [3] delivers a thorough examination of Huffman coding, outline its core principles, structural variations with practical implementations. This work remains a critical reference for comprehending the theoretical and applied aspects of lossless data compression. The study in [4] addresses the scalability challenges of Huffman coding, that proposes strategies to enhance algorithmic performance while managing extensive data volumes. These all insights have proven significant for real-world applications where large number of datasets are required for efficient encoding schemes. In addition, the comparative assessment offered in [5] reviews various JavaScript-based compression libraries, with particular attention given to those that are integrated with ArrayBuffer-based techniques. This



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(86) International Application No :NA Filing Date :NA
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(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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8)Vishwanil Suman

Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey
Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - JUNE-JULY 2025

Faculty Achievements/ Participation :

10.Dr. Deepali Mahesh Gohil Completed her PhD on topic "LIGHT WEIGHT INTRUSION DETECTION SYSTEM AGAINST RPL ROUTING ATTACKS USING FINITE STATE MACHINE AND GAME THEORY IN IOT " from Computer Science and Engineering , VIT , Chennai on 1st July 2025

11.Dr. D. D. Rane has worked as a Reviewer in the INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE & BEYOND : EMERGING INNOVATIONS AND APPLICATIONS (IAIB-2025)

Faculty Achievements/ Participation

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - JUNE-JULY 2025

Department Activities:

1.BE Project Orientation Program session was conducted on 06/06/2025 for all BE students , total 107 students were present .Dr.Shanti Guru and Ms. Supriya Sathe were the coordinator and Co-Coordinator for the session respectively

2.Signed MoU With MoU signed with Pragmatic Global Pvt. Ltd. on 20th May 2025 for different program activity and Internship purpose for this Mr. Rahul Bajait from Pragmatic Global Pvt. Ltd ,Dr.Mrs.P.Malathi ,Dr. M.A.Potey, Dr. Vaishali Kolhe were Present

3.Faculty Orientation Program organized for on 02/07/2025 on topic about S Y B.Tech Curriculum discussion and CCE activity conduction .Organizer for the session were Ms.S.T.Somvasnhi (Coordinator) Ms.Supriya sathe , Ms, Namrata Soni(Co-Coordinator). Total 17 faculty members were present for the orientation session

Department Activities:

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - JUNE-JULY 2025

Department Activities

4.TE Induction Program organized on 16/07/2025 in Dyanprasad Seminar hall.

5.TE Seminar Orientation Program organized on 16/07/2025

6.SY Induction program conducted on 18/07/2025

7. 3 days Python and Flask workshop conducted by Team ACM on 18/07/2025 to 20/07/2025

Department Activities

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department

D Y PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE 44

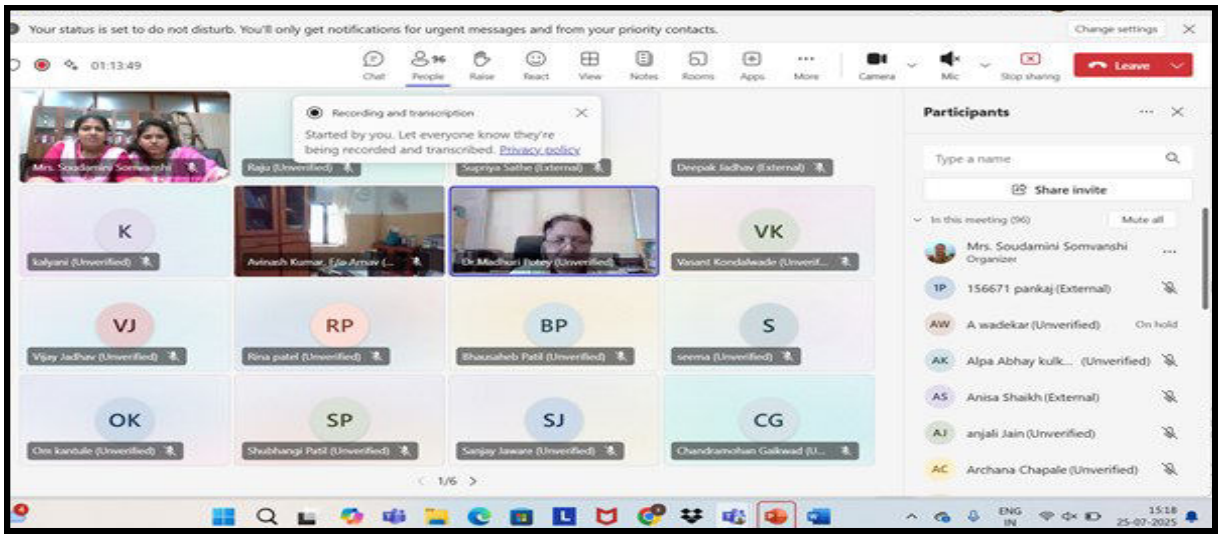
DEPARTMENT OF COMPUTER ENGINEERING

NEWS LETTER - JUNE-JULY 2025

Department Activities:

8.Parent Teacher Meet conducted on 25/07/2025 in online mode at 3.00 to 5.00pm for all SY ,TE and BE students. Coordinators for the event were Ms.Supriya Sathe and Ms.Namrata Soni

9.Alumni Meet conducted on 26/07/2025 in CR 11 at 11.00am to 12.30pm. Coordinator for the event were Ms .Dhanashree Phalke and Ms. Sonal Mohite



Department Activities:

Name of Faculty Coordinator : Ms. Supriya Sathe

Dr Mrs. M. A. Potey

Head of Department