



PRAGATI ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF CSE (DATA SCIENCE)

Date: 15-10-2025

A Report on the Student Workshop on “Quantum Image Processing for Large Scale Image Data”

As part of the technical activities under the Society for Data Science (S4DS) – Student Chapter of the Department of CSE (Data Science), a 1-Day Competency Development Program (CDP) on “Quantum Image Processing for Large Scale Image Data” was conducted.

Title of the Event (Topic): Quantum Image Processing for Large Scale Image Data

Speaker (Resource Person) of the Event: Prof. U S N Raju, Associate Professor, NIT-Warangal & Industry Person

Date: 11-10-2025

Time: 9:00 AM – 4:00 PM

Venue: PAT HUB (F-2)

Brief Write-up of the Event:

The Department of CSE (Data Science) at Pragati Engineering College organized a **1-Day Competency Development Program (CDP)** titled “Quantum Image Processing for Large Scale Image Data” on **11th October 2025 (Saturday)**. The event was held under the **Society for Data Science (S4DS) – Student Chapter**, with the expert guidance of **Prof. U. S. N. Raju**, Associate Professor, Department of CSE, NIT Warangal.

The objective of this CDP was to introduce participants to the emerging field of **Quantum Image Processing (QIP)** — an interdisciplinary area that combines **quantum computing** and **image processing** to address challenges in handling and analyzing large-scale image data.

The session began with an overview of **quantum computing fundamentals**, focusing on how quantum mechanics principles such as **superposition** and **entanglement** can be applied to computational models. The speaker then discussed the **representation of digital images in quantum systems**, the **advantages of quantum-based image transformations**, and the **application of quantum algorithms** for tasks such as image compression, enhancement, and pattern recognition.

In the later sessions, Prof. Raju elaborated on **quantum algorithms used in image analysis**, such as the **Quantum Fourier Transform (QFT)** and **Quantum Edge Detection**, emphasizing how





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they outperform classical approaches for large-scale datasets. The session concluded with discussions on the future potential of quantum technologies in data science, machine learning, and computer vision, encouraging students to explore research opportunities in this field.

A total of 162 participants, including faculty members and students from all departments, actively took part in the program, making it a highly engaging and informative event.

HIGHLIGHTS AND KEY TAKEAWAYS:

Highlights:

- Expert talk by Prof. U. S. N. Raju from NIT Warangal on Quantum Image Processing.
- Comprehensive coverage of quantum computing fundamentals and their link to image processing.
- Introduction to quantum algorithms for image representation, analysis, and compression.
- Insightful discussions on the future of quantum computing in data science and computer vision.
- Active student participation through interactive Q&A sessions.

Key Takeaways:

- Understanding of the basic principles of quantum computing.
- Awareness of how quantum systems can process large-scale image data efficiently.
- Exposure to quantum algorithms relevant to image analysis.
- Inspiration to pursue research and innovation in the field of quantum technologies.
- Recognition of quantum computing's impact on the future of data-driven technologies.

PHOTOGRAPHS FROM THE EVENT:

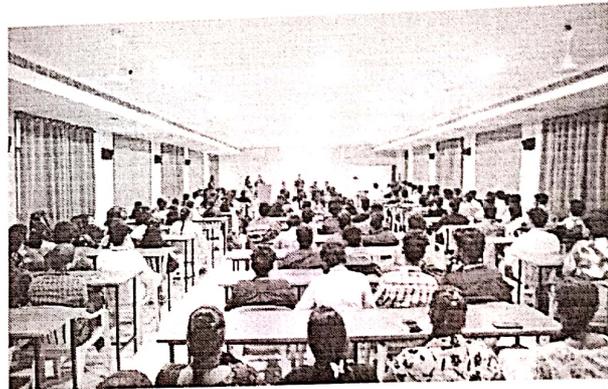
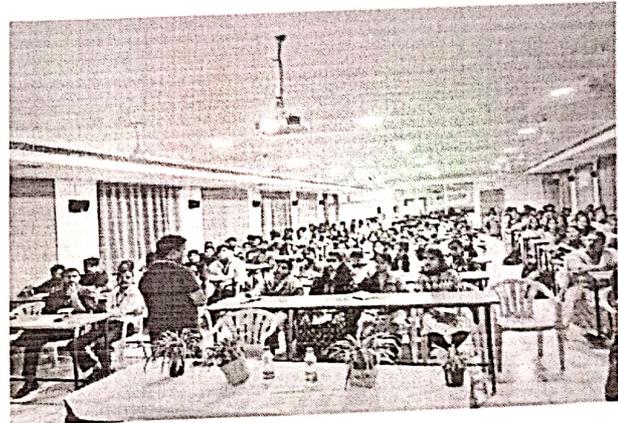
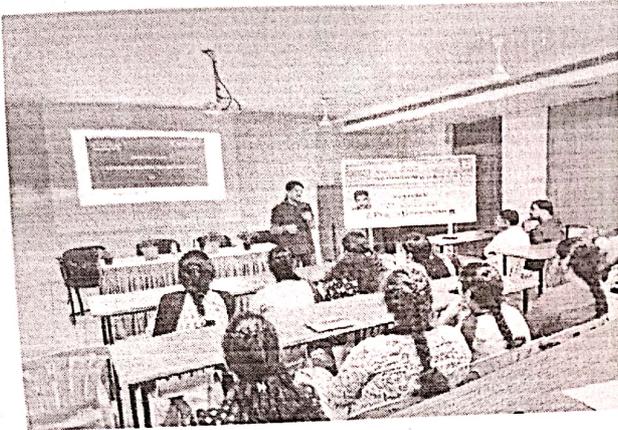




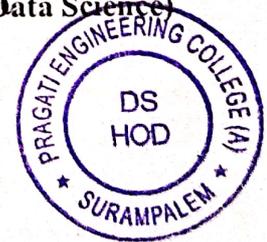
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M. Lakshmi 15/10/2025
HOD-CSE (Data Science)



Encl:

Attendance list of students



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For Faculty

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DEPARTMENT OF CSE (DATA SCIENCE)

Society for Data Science Student Chapter Activity

Name of the Event: Competency Development program

Title of the Event (Topic): Quantum Image processing for Large Scale Image Data

Speaker (Resource Person) of the event: Prof. USN Raju

Date: 11/10/25 Time of the Event: 9:00 Am - 4:00 pm

Venue of the Event: F-2

List of Faculty Attended: 162

S.No	Name	Department	Signature of the Faculty
1	L. Yamuna	CSM	[Signature]
2	Ch. Sowjanya	ESE	[Signature]
3	K. Tulya Sree Simla	CSD	[Signature]
4	V.R.V.S. Sai Valli	EEE	[Signature]
5	B. V. Gantha Lakshmi	ECE	[Signature]
6	ARAVINDA.K	ME	[Signature]
7	S. Jyothi	ECE	[Signature]
8	Y. Manas Kumar	CSE	[Signature]
9	P. Virod Kumar Naidu	ME	[Signature]
10	P. Ravi Sankar	ECE	[Signature]
11	M. Manishankar	CSE (CS)	[Signature]
12	Mr. D. Konda babu	IT	[Signature]
13	Mr. Sakinam	AIML	[Signature]
14	Dr. D. Uma	CSE	[Signature]
15	V. Saikiran	CSM	[Signature]
16	K. Shammur	CSE	[Signature]
17	K. Srikanth	CSD	[Signature]
18	Y. Suna Chandrasekari	CSD	[Signature]
19	K. Harika	CSD	[Signature]
20	V. Suvama	CSD	[Signature]
21	Ch. Veera Gayathri	CSE (DS)	[Signature]
22	N. Veeritha	CSE (DS)	[Signature]
23	D. Chandra Satya Tulasi	CSE (DS)	[Signature]
24	A. Divya Kupa Rimala	CSE (DI)	[Signature]
25	N.V.S. Saifanya	CSE (DS)	[Signature]
26			
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Signature of the Student Coordinator: V.L. Praveethi

Signature of the Faculty Coordinator: [Signature]



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DEPARTMENT OF CSE (DATA SCIENCE)

Society for Data Science Student Chapter Activity

Name of the Event: Competency Development Program
 Title of the Event (Topic): Quantum Image processing for Large Scale Image Data
 Speaker (Resource Person) of the event: Prof. USN Raju
 Date of the Event: 11/10/25 Time of the Event: 9:00 AM-4:00pm Venue of the Event: F-2

List of Students Attended: 162

S.No	Roll Number	Name	Branch	Year	Signature of the student
1	24A31A0357	V. Seva Ram chasan	MECH	II nd	V. Seva Ram chasan
2	24A35A0305	K. Satwik	MECH	III rd	K. Satwik
3	24A35A0315	S. Chandu	MECH	III rd	S. Chandu
4	24A35A0306	K. pavan sunya kumar	MECH	III rd	K. pavan sunya kumar
5	23A31A0326	K. Kameswara Rao	MECH	IV	K. Kameswara Rao
6	23A31A0341	P. Prashanth	MECH	III	P. Prashanth
7	23A31A0540	K. Manideep	CSE	III-A	K. Manideep
8	23A31A0562	K.R.K Sujkar	CSE	III-A	K.R.K Sujkar
9	23A31A0554	T. Sai Ganesh	CSE	III-A	T. Sai Ganesh
10	24A31A059E	Ch. Pradeep	CSE	III rd	Ch. Pradeep
11	24A31A051D	B. Varun	CSE	II nd	B. Varun
12	24A31A051K	P. Yashwanth Gupta	CSE	II nd	P. Yashwanth Gupta
13	23A31A0599	N.V.S. Narayanaamma	CSE	III rd	N.V.S. Narayanaamma
14	24A35A0501	K. G. Khyati	CSE	III rd	K. G. Khyati
15	23A34A0525	R.L. Salasra	CSE	III rd	R.L. Salasra
16	23A31A0411	S. Sneha	ECE	III	S. Sneha
17	23A31A05G5	T. Geethika	CSE	III rd	T. Geethika
18	23A31A05G6	V. Geethika	CSE	III rd	V. Geethika
19	23A31A05G1	Sk. Roshini	CSE	III rd	Sk. Roshini
20	24A35A0108	D. kavya	Civil	III rd	D. kavya
21	24A35A0104	M. Vaishnavi Devi	Civil	III rd	M. Vaishnavi Devi
22	24A35A0101	D. Ganga Bhavani	Civil	III rd	D. Ganga Bhavani
23	23A31A4461	M.R.V. vardhan	DS	III rd	M.R.V. vardhan
24	23A31A4467	S. Rakesh	DS	III rd	S. Rakesh
25	24A31A4454	R. Pranshi	DS	III rd	R. Pranshi
26	24A31A4466	Y. Sai Venkatesh	DS	III rd	Y. Sai Venkatesh
27	24A31A44D0	V.D. Rama Kishore	DS	III rd	V.D. Rama Kishore
28	24A31A44C2	P. Aravind	DS	III rd	P. Aravind
29	24A31A4446	M. Vardhan Reddy	DS	III rd	M. Vardhan Reddy
30	24A31A4450	M. Praveen	DS	III rd	M. Praveen

V. L. Praveen
Signature of the Student Coordinator

Duma
Signature of the Faculty Coordinator



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Name of the Event: Competency Development Program

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Speaker (Resource Person) of the event: Prof. USN Rajit

Date of the Event: 11/10/25

Time of the Event: 9:00 AM - 4:00 PM Venue of the Event: F-2

List of Students Attended: 162

S.No	Roll Number	Name	Branch	Year	Signature of the student
1	24A31A4370	B. Sravya	AI	II	B. Sravya
2	23A31A05D3	B. Manj Gauri	CSE	III	B. Manj Gauri
3	24A31A4382	M. Dindhu Sri.	AI	II	M. Dindhu Sri
4	24A31A4325	R. K. N. DEEPIKA	AI-A	II	R. K. N. Deepika
5	24A31A0585	K. Gouri durga Srivalli	CSE-B	II	K. G. D. Srivalli
6	24A31A05H0	S. Chandrika Lakshmi	CSE-E	II	S. Chandrika
7	24A31A05GN	K. Kusuma Sai Saranya	CSE-E	II	K. Saranya
8	24A31A05GV	K. Mahitha	CSE-E	II	K. Mahitha
9	24A31A44D5	Ch. Rajasri	CD-C	II	Ch. Rajasri
10	24A31A44G6	Y. Neha	CD-C	II	Y. Neha
11	24A31A44D3	A. Harshitha	CSD-C	II	A. Harshitha
12	24A31A0419	S. Akshitha	ECE-A	II	Akshitha
13	25A35A4414	SD. Arshad	CSD-C	II	SD. Arshad
14	24A31A44E3	G. Srishta	CSD-C	II	G. Srishta
15	24A31A44E4	K. Archana	CSD-C	II	K. Archana
16	24A31A44E7	K. Bhuvana	CSD-C	II	K. Bhuvana
17	23A31A0215	P.V. Indu Priya Dorshini	EEE	III	P. V. Indu Priya
18	23A31A0220	K.V.V.S Anjani Kumari	EEE	III	K. V. V. S. Anjani
19	23A31A4405	G. R. L. Hensavi	DS	III	G. R. L. Hensavi
20	23A31A4422	V. Pranavika	DS	III	V. Pranavika
21	23A31A4421	T. Siva Naga Bhargavi	DS	III	T. Siva Naga
22	24A35A4401	A. D. Malleshwar	DS	III	A. D. Malleshwar
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V. L. Pranathi
Signature of the Student Coordinator

[Signature]
Signature of the Faculty Coordinator



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S.No	Roll Number	Name	Branch	Year	Signature of the student
1	23A31A42G2	Anaparthi Bhimesh	AIML	III	A.B.V.D.Bhimesh.
2	24A31A0247	N.T.S.Santosh	EEE	II	N.T.S.Santosh
3	23A31A05I1	M. Hari Yantham	CSE	III	M. Hari Yantham
4	25A35A44I5	A. Bala Karthik Reddy	DS	II	A. Bala Karthik Reddy
5	23A31A42J0	T. Syam kumar	AIML	II	T. S. kumar
6	23A31A42G9	G. D. E. Ashok	AIML	III	G. D. E. Ashok
7	23A31A44 38	G. Kishore	DS(B)	III	G. Kishore
8	23A31A44 A6	C. Kushanath	DS(B)	III	C. Kushanath
9	23A31A44 91	J. Rohith Kumar	DS(B)	III	J. Rohith Kumar
10	23A31A44A5	S. Chandra Sekhar	DS(B)	III	S. Chandra Sekhar
11	23A31A44 49	Sai Prasad Roy	DS(A)	III	Sai Prasad Roy
12	23A31A44 32	K. Varshitha	DS(A)	III	K. Varshitha
13	23A31A44 31	K. Shanmukh Venkat	DS(A)	III	K. Shanmukh Venkat
14	23A31A44 F1	D. Gopichandh	DS(c)	III	D. Gopichandh.
15	23A31A44 42	M. Sivajikapu	EEE	III	M. Sivaji
16	23A31A0247	M. A. N. V. SATYA MANTI KANTA	EEE	III	M. A. N. V. SATYA MANTI KANTA
17	24A35A44 33	A. Siva Sankar	DS(C)	III	A. Siva Sankar
18	23A31A44 F6	G. manikav	DS(C)	III	G. manikav
19	23A31A44 H1	V. Prudhvi	DS(C)	III	V. Prudhvi
20	23A31A44 F3	D. Chandu	DS(C)	III	D. Chandu.
21	23A31A44 F2	D. MURALI KRISHNA	DS(C)	III	D. Murali Krishna
22	23A31A44 H5	V. Venkata Krishna	DS(C)	III	V. Venkata Krishna
23	23A35A44 05	M. Sri Ram	DS(A)	II	M. Sri Ram
24	25A35A44 06	S. Vinay Kumar	DS(A)	II	S. Vinay Kumar
25	24A31A44 40	G. Gunashekhar	DS(A)	II	G. Gunashekhar
26	24A31A44 53	P. Harsha	DS(A)	II	P. Harsha
27	25A35A44 10	G. Dattacharan	DS(B)	II	G. Dattacharan
28	25A35A44 11	K.V. Venkateswara Rao	DS(A)	II	K.V. Venkateswara Rao
29	25A35A44 12	M. Raju	DS(B)	II	M. Raju.
30	24A31A05IB	B. Tagna Narayana	CSE-E	II	B. Tagna Narayana

V. L. Praveen
Signature of the Student Coordinator

[Signature]
Signature of the Faculty Coordinator



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S.No	Roll Number	Name	Branch	Year	Signature of the student
1	24A35A1906	G. Pawan	IT	3 rd	G. Pawan
2	23A31A1237	G.V. LOKESH	IT	3 rd	G.V. LOKESH
3	23A31A1257	SK. Napeetha	IT	3 rd	sk Napeetha
4	23A31A4625	A. Raghuram	CSE(CS)	3 rd	A. Raghuram
5	24A35A618	V. Subhakar	CSE(CS)	3 rd	V. Subhakar
6	24A35A4424	M. Surya Manjun Reddy	CSE(CS)	3 rd	M. Manjun Reddy
7	23A31A4624	A.V. Satyanarayana	CSE(CS)	3 rd	A.V. Satyanarayana
8	23A31A4499	P.B.G. S.S. Sriram	CSE(CS)	3 rd	Sriram
9	23A31A4484	B. Sai Chandu	CSE(CS)	3 rd	Sai Chandu
10	24A31A0415	SK. SALAR AHMED	ECE	3 rd	SK. SALAR AHMED
11	23A31A0489	P. SURESH	ECE	3 rd	P. SURESH
12	23A31A4490	B. Jacinth Prasad	CSE(CS)	3 rd	Jacinth Prasad
13	23A31A4464	P. Akshay Kumar	CSE(DS)	3 rd	P. Akshay Kumar
14	23A31A4410	K. Thanuja	CSE(DS)	3 rd	K. Thanuja
15	23A31A4406	G. Chandrika prava	CSE(DS)	3 rd	G. Chandrika prava
16	24A31A0400	S. V. S. V. Roshesh	ECE	2 nd	S. V. S. V. Roshesh
17	24A31A4405	P. Hema Nareesh	CSE(CS)	2 nd	P. Hema Nareesh
18	24A31A4442	E. Rakesh	CSE(CS)	2 nd	E. Rakesh
19	24A31A4404	P. Yaswanth	CSE(CS)	2 nd	P. Yaswanth
20	24A31A4497	A. Roshan	CSE(CS)	2 nd	A. Roshan
21	24A31A4448	M. Karan Kumar	CSE(CS)	2 nd	M. Karan Kumar
22	24A31A4432	A. Vardhan Varma	CSE(CS)	2 nd	A. Vardhan Varma
23	23A31A0114	P. Chandraka	CIVIL	3 rd	P. Chandraka
24	23A31A0101	A. V. Pravallika devi	Civil	3 rd	A. V. Pravallika devi
25	23A31A0112	P. Sarvani	Civil	3 rd	P. Sarvani
26	23A31A0111	P. Sri Setya	Civil	3 rd	P. Sri Setya
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V.L. Pranthi
Signature of the Student Coordinator

Suma
Signature of the Faculty Coordinator



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 Speaker (Resource Person) of the event: Prof. USN Raju
 Date of the Event: 19/00/25 Time of the Event: 9:00 Am-4:00pm Venue of the Event: F-2
 List of Students Attended: 162

S.No	Roll Number	Name	Branch	Year	Signature of the student
①	24A31A0593	P. Alekhya	CSE	III rd	Alekhya P. J. P
2	23A31A1209	G. Revathi	IT	3 rd	G. Revathi
3	23A31A4602	A. Soomya	CS	3 rd	A. Soomya
4	23A31A4614	P. Ranga Sri	CS	III rd	P. Ranga Sri
5	23A31A4419	Sk. Diya Rekhma	DS	II nd	Sk. Diya Rekhma
6	23A31A4411	K. Suchitra	DS	II nd	K. Suchitra
7	23A31A4417	R. Thanu Sowmya Sri	DS	II nd	R. Thanu Sowmya Sri
8	24A31A4402	A. Leela	DS	II nd	A. Leela
9	24A31A4409	D. Lakshmi Prasanna	DS	II nd	D. Lakshmi Prasanna
10	24A31A4479	M. Sahasra	DS	II nd	M. Sahasra
11	24A31A4491	Ruchika Sai R.	DS	II nd	Ruchika Sai R.
⑫	24A31A4466	K. Mamatha	DS	II nd	K. Mamatha
13	24A31A0205	Ch. Lakshmi Sri	EEE	II nd	Ch. Lakshmi Sri
14	23A31A4230	V. Kanga	AI&ML	III	V. Kanga
15	23A31A4216	M. Harshitha	AI&ML	III	M. Harshitha
16	23A31A4274	G. Lavanya	AI&ML	III	G. Lavanya
17	23A31A4279	K. Suganya	AI&ML	III	K. Suganya
18	24A31A44E0	G. Mohana Ramya	DS	II	G. Mohana Ramya
19	24A31A44F7	P. Sujini	DS	II	P. Sujini
20	23A31A4465	G. Sri Sowmya	DS	II	G. Sri Sowmya
21	23A31A4485	A. Krishna Sri	DS	II	A. Krishna Sri
22	23A31A4471	M. Fathima	DS	II	M. Fathima
23	25A35A4407	K. Divya Sri	DS	II nd	K. Divya Sri
24	25A35A4409	P. Sidvi Harika	DS	II nd	P. Sidvi Harika
25	25A35A4408	N. Supriya	DS	II nd	N. Supriya
26	23A31A4401	A. Veera Lahari	DS	III rd	A. Veera Lahari
27	23A31A4413	N. Lakshmi prasavallika	DS	III	N. Lakshmi prasavallika
28	23A31A4418	S. Kiranmai	DS	III	S. Kiranmai
⑳	24A31A0810	S. Vanisha	MECH	II nd	S. Vanisha
30					

Signature of the Student Coordinator
 V. L. Pranthi

Signature of the Faculty Coordinator
 Suma