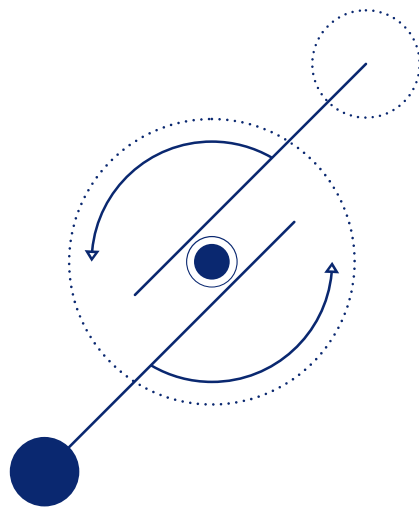
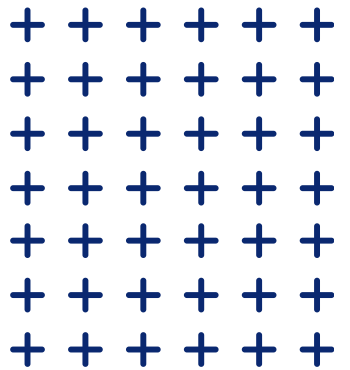




RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University
NAAC Accredited with 'A+' Grade & An ISO 9001: 2015 Certified Institution
Rajapalayam - 626 117, Tamil Nadu.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE



MONTHLY NEWS LETTER

NOV' 25



EDITORIAL COMMITTEE MEMBERS



Dr. M. Kaliappan, Professor & Head



Dr. E. Mariappan, Associate Professor



K. Nithya Shree, IV – B



I. Delight Cherubino, III – A

VISION

- TO IMPART INTERNATIONAL QUALITY EDUCATION, PROMOTE COLLABORATIVE RESEARCH AND GRADUATE INDUSTRY-READY ENGINEERS IN THE DOMAIN OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE TO SERVE THE SOCIETY.

MISSION

- EXCEL IN TEACHING-LEARNING PROCESS AND COLLABORATIVE RESEARCH BY THE USE OF MODERN INFRASTRUCTURE AND INNOVATIVE COMPONENTS.
- ESTABLISH AN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE BASED CENTRE OF EXCELLENCE TO PREPARE PROFESSIONAL TECHNOCRATS FOR SOLVING INTERDISCIPLINARY INDUSTRY PROBLEMS IN VARIOUS APPLICATIONS
- MOTIVATE STUDENTS TO EMERGE AS ENTREPRENEURS WITH LEADERSHIP QUALITIES IN A SOCIETAL CENTRIC PROGRAMME TO FULFIL INDUSTRY AND COMMUNITY NEEDS WITH ETHICAL STANDARDS.

PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

AFTER SUCCESSFUL COMPLETION OF THE DEGREE, THE STUDENTS WILL BE ABLE TO

- PEO 1. APPLY ARTIFICIAL INTELLIGENCE AND DATA SCIENCE TECHNIQUES WITH INDUSTRIAL STANDARDS AND PIONEERING RESEARCH TO SOLVE SOCIAL AND ENVIRONMENT-RELATED PROBLEMS FOR MAKING A SUSTAINABLE ECOSYSTEMS.
- PEO 2. EXCEL WITH PROFESSIONAL SKILLS, FUNDAMENTAL KNOWLEDGE, AND ADVANCED FUTURISTIC TECHNOLOGIES TO BECOME DATA SCIENTISTS, DATA ANALYST MANAGERS, DATA SCIENCE LEADERS AI RESEARCH SCIENTISTS, OR ENTREPRENEURS.

PROGRAM SPECIFIC OUTCOMES (PSO'S)

AFTER SUCCESSFUL COMPLETION OF THE DEGREE, THE STUDENTS WILL BE ABLE TO:

- PSO 1: TO APPLY ANALYTIC TECHNOLOGIES TO ARRIVE AT ACTIONABLE FORESIGHT, INSIGHT, HINDSIGHT FROM DATA FOR SOLVING BUSINESS AND ENGINEERING PROBLEMS
- PSO 2: TO CREATE, AND APPLY THE TECHNIQUES OF AI AND DATA SCIENCE TO FORECAST FUTURE EVENTS IN THE DOMAIN OF HEALTHCARE, EDUCATION, AND AGRICULTURE, MANUFACTURING, AUTOMATION, ROBOTICS, TRANSPORT, ETC
- PSO 3: TO ENRICH THE CRITICAL THINKING SKILLS IN EMERGING TECHNOLOGIES SUCH AS HYBRID MOBILE APPLICATION DEVELOPMENT, CLOUD TECHNOLOGY STACK, AND CYBER-PHYSICAL SYSTEMS WITH MATHEMATICAL AID TO FORESEE THE RESEARCH FINDINGS AND PROVIDE THE SOLUTIONS.

FACULTY PARTICIPATION

>> DR. M. KALIAPPAN, PROFESSOR AND HEAD/ AI & DS, HAS SUCCESSFULLY PARTICIPATED & COMPLETED AICTE TRAINING AND LEARNING (ATAL) ACADEMY FACULTY DEVELOPMENT PROGRAM ON “NEXT GEN AI AND LLMS: TRANSFORMING PEDAGOGY AND RESEARCH” AT NATIONAL INSTITUTE OF TECHNICAL TEACHERS’ TRAINING AND RESEARCH FROM 10TH TO 15TH NOV., 2025.



>> DR. E.MARIAPPAN, ASSO.PROF/ AI & DS, HAS SUCCESSFULLY PARTICIPATED & COMPLETED AICTE TRAINING AND LEARNING (ATAL) ACADEMY FACULTY DEVELOPMENT PROGRAM ON “NEXT GEN AI AND LLMS: TRANSFORMING PEDAGOGY AND RESEARCH” AT NATIONAL INSTITUTE OF TECHNICAL TEACHERS’ TRAINING AND RESEARCH FROM 10TH TO 15TH NOV., 2025.



>> MRS. R. ANGEL HEPZIBAH, AP / AI & DS, HAS SUCCESSFULLY PARTICIPATED & COMPLETED AICTE TRAINING AND LEARNING (ATAL) ACADEMY FACULTY DEVELOPMENT PROGRAM ON “NEXT GEN AI AND LLMS: TRANSFORMING PEDAGOGY AND RESEARCH” AT NATIONAL INSTITUTE OF TECHNICAL TEACHERS’ TRAINING AND RESEARCH FROM 10TH TO 15TH NOV., 2025.



>> MRS. B. REVATHI, AP / AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “OPERATING SYSTEM FUNDAMENTALS” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.





>> MR. M. RAMNATH, AP / AI & DS, HAS SUCCESSFULLY PARTICIPATED IN THE NATIONAL CONFERENCE ON “UNNAT BHARAT ABHIYAN: ADVANCING COMMUNITY ENGAGEMENT IN HIGHER EDUCATION TOWARDS SDGS 2030 AND VIKSIT BHARAT @ 2047” HELD ON 11.11.2025 AT THE GANDHIGRAM RURAL INSTITUTE (DEEMED TO BE UNIVERSITY), GANDHIGRAM, DINDIGUL DISTRICT, TAMILNADU.



>> MR. M. RAMNATH, AP / AI & DS, PARTICIPATED & COMPLETED AICTE TRAINING AND LEARNING (ATAL) ACADEMY FACULTY DEVELOPMENT PROGRAM ON “NEXT GEN AI AND LLMS: TRANSFORMING PEDAGOGY AND RESEARCH” AT NATIONAL INSTITUTE OF TECHNICAL TEACHERS’ TRAINING AND RESEARCH FROM 10TH TO 15TH NOV., 2025.



>> DR. S. V. ANANDHI, ASSO.PROF/AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “ARTIFICIAL INTELLIGENCE: CONCEPTS AND TECHNIQUES” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
DR S V ANANDHI
for successfully completing the course

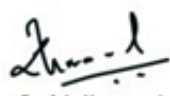
Artificial Intelligence: Concepts and Techniques

with a consolidated score of **81** %


Online Assignments	25/25	Proctored Exam	55.5/75
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Total number of candidates certified in this course: **6785**


Jul-Oct 2025
(12 week course)




Prof. L. Umanand
NPTEL Coordinator & Chair, Centre for Continuing Education, IISc Bangalore





Indian Institute of Science Bangalore



Roll No: NPTEL25CS159S1270200189 To verify the certificate  No. of credits recommended: 3 or 4

>> DR. S. SELVA BIRUNDA, ASSO.PROF/AI&DS, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
SELVA BIRUNDA S
for successfully completing the course


Big Data Computing

with a consolidated score of **78** %

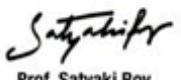
Online Assignments	25/25	Proctored Exam	53.25/75
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Total number of candidates certified in this course: **5740**


Aug-Oct 2025
(8 week course)




Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur




Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur



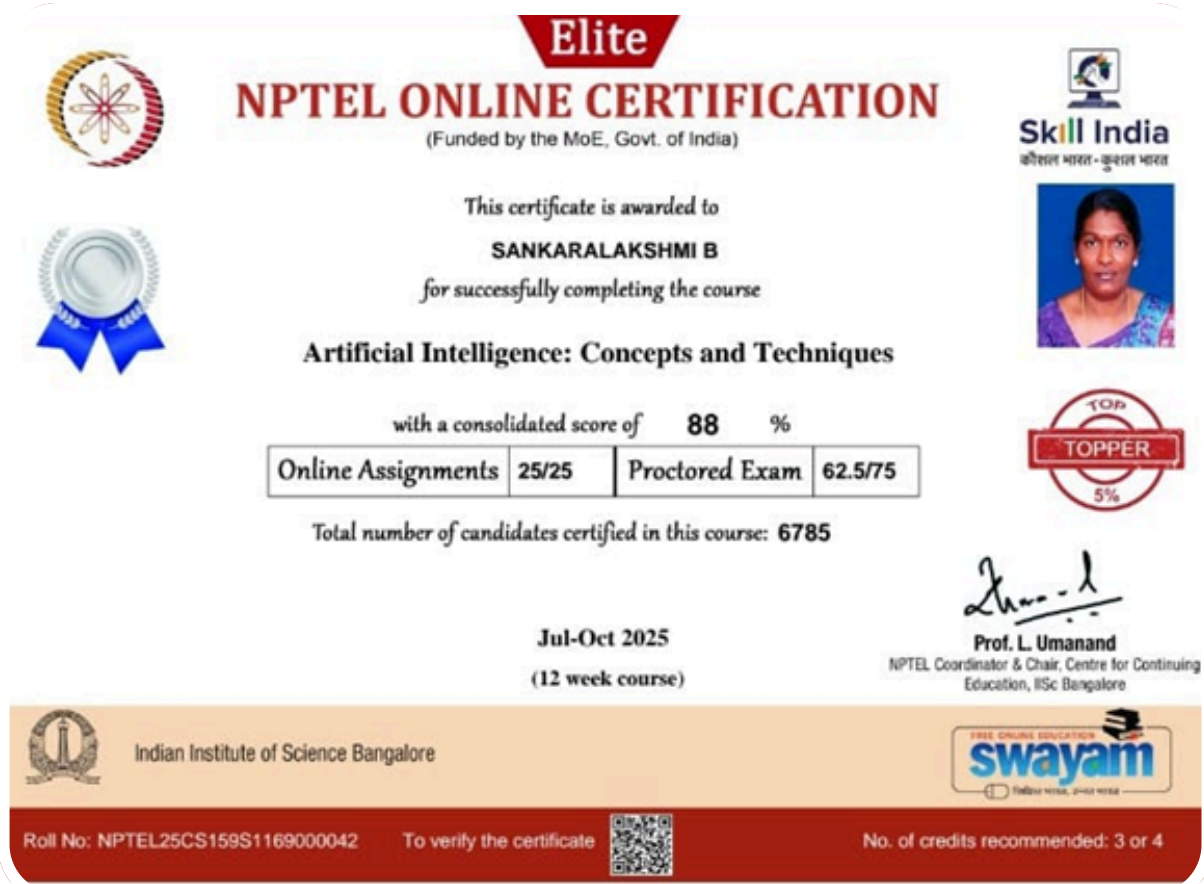
Indian Institute of Technology Kanpur



Roll No: NPTEL25CS131S1269000061 To verify the certificate  No. of credits recommended: 2 or 3




>> MRS. B. SANKARALAKSHMI, AP/AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “ARTIFICIAL INTELLIGENCE: CONCEPTS AND TECHNIQUES” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



>> MRS. B. SANKARALAKSHMI, AP/AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “INTRODUCTION TO INTERNET OF THINGS” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.




>> MRS. M.SANTHIKALA, AP /AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “INTRODUCTION TO MACHINE LEARNING” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



Skill India
कौशल भारत - कुशल भारत

This certificate is awarded to

SANTHIKALA M


for successfully completing the course

Introduction to Machine Learning

with a consolidated score of **66** %


Online Assignments	25/25	Proctored Exam	40.88/75
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Total number of candidates certified in this course: **6928**




Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jul-Oct 2025
(12 week course)



Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras




Indian Institute of Technology Madras

FREE ONLINE EDUCATION

swayam


विद्यया ऋतेः, ज्ञानेन मर्तेः

Roll No: NPTEL25CS91S369000045

To verify the certificate 

No. of credits recommended: 3 or 4


>> MRS. M.SANTHIKALA, AP /AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “DEEP LEARNING – IIT REPAR” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



Skill India
कौशल भारत - कुशल भारत

This certificate is awarded to

SANTHIKALA M


for successfully completing the course

Deep Learning - IIT Ropar

with a consolidated score of **67** %


Online Assignments	23.31/25	Proctored Exam	43.5/75
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Total number of candidates certified in this course: **4623**




Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jul-Oct 2025
(12 week course)



Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras




Indian Institute of Technology Madras

FREE ONLINE EDUCATION

swayam



विद्यया ऋतेः, ज्ञानेन मर्तेः

Roll No: NPTEL25CS106S4690000625

To verify the certificate 



No. of credits recommended: 3 or 4

>> MRS. M.SANTHIKALA, AP /AI&DS, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “INTRODUCTION TO ALGORITHMS AND ANALYSIS” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)



This certificate is awarded to

SANTHIKALA M

for successfully completing the course


Introduction to Algorithms and Analysis

with a consolidated score of **76** %


Online Assignments	23.75/25	Proctored Exam	52.5/75
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Total number of candidates certified in this course: **1059**


Jul-Oct 2025
(12 week course)



Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur




Indian Institute of Technology Kharagpur



Roll No: NPTEL25CS150S1269000049

To verify the certificate



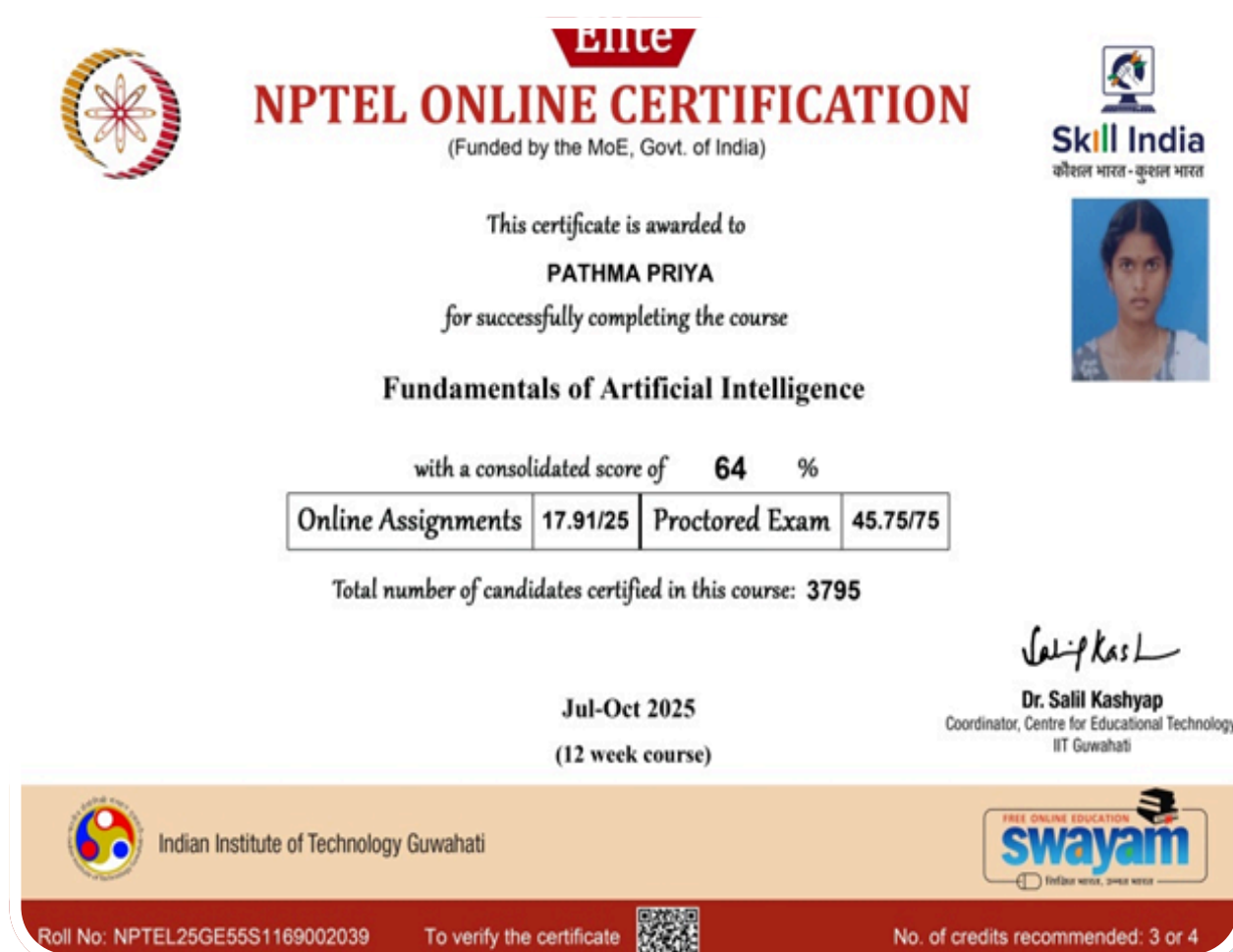
No. of credits recommended: 3 or 4

STUDENTS PARTICIPATION



>> K. MAHIMA, II-AI&DS-A, HAS SUCCESSFULLY PARTICIPATED AN EVENT WITH ACTIVITY AND HANDS-ON PROJECT-BASED WORKSHOP, "A PRECURSOR AND A QUALIFIER TO THE RESIDENTIAL STUDENT WORKSHOP", CONDUCTED AT THE MEPCO SCHLENK ENGINEERING COLLEGE ON 25TH OCTOBER 2025.



>> V. PATHMA PRIYA, II-AI&DS-A, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON "FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE" OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.





>> S. SREEJEYANTHI, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)




This certificate is awarded to
SREEJEYANTHI S
for successfully completing the course

Big Data Computing


with a consolidated score of **82** %


Online Assignments	25/25	Proctored Exam	57/75
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Total number of candidates certified in this course: **5740**


Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur


Aug-Oct 2025
(8 week course)


Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

**Indian Institute of Technology Kanpur**





Roll No: NPTEL25CS131S1272300162

To verify the certificate 



No. of credits recommended: 2 or 3

>> T. RAGAVI, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)




This certificate is awarded to
RAGAVI T
for successfully completing the course

Big Data Computing


with a consolidated score of **76** %


Online Assignments	24.58/25	Proctored Exam	51.75/75
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Total number of candidates certified in this course: **5740**


Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur


Aug-Oct 2025
(8 week course)


Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

**Indian Institute of Technology Kanpur**





Roll No: NPTEL25CS131S1270600963

To verify the certificate 



No. of credits recommended: 2 or 3

>> V. RAJESHWARI, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)




This certificate is awarded to
RAJESHWARI V
for successfully completing the course
Big Data Computing


with a consolidated score of **75** %


Online Assignments	25/25	Proctored Exam	50.25/75
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Total number of candidates certified in this course: **5740**


Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Oct 2025
(8 week course)



Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

**Indian Institute of Technology Kanpur**





Roll No: NPTEL25CS131S1169001897

To verify the certificate





No. of credits recommended: 2 or 3

>> E. ANUSRII, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)




This certificate is awarded to
ANUSRII E
for successfully completing the course
Big Data Computing


with a consolidated score of **75** %


Online Assignments	25/25	Proctored Exam	50.25/75
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Total number of candidates certified in this course: **5740**


Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Oct 2025
(8 week course)



Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

**Indian Institute of Technology Kanpur**





Roll No: NPTEL25CS131S1170000025

To verify the certificate





No. of credits recommended: 2 or 3

>> M.SAMIKSHA, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)




This certificate is awarded to
SAMIKSHA
for successfully completing the course
Big Data Computing

with a consolidated score of **78** %


Online Assignments	24.58/25	Proctored Exam	53.25/75
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Total number of candidates certified in this course: **5740**




Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur


Aug-Oct 2025
(8 week course)




Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur




Indian Institute of Technology Kanpur




Roll No: NPTEL25CS131S1169000003 To verify the certificate  No. of credits recommended: 2 or 3

>> G. GOKULA LAKSHMI, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)



This certificate is awarded to
GOKULA LAKSHMI
for successfully completing the course
Big Data Computing

with a consolidated score of **55** %

Online Assignments	25/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **5740**



Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur


Aug-Oct 2025
(8 week course)




Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur




Indian Institute of Technology Kanpur




Roll No: NPTEL25CS131S1272300144 To verify the certificate  No. of credits recommended: 2 or 3

>> S. NIRMALA, III-AI&DS-B, AWARDED 8 WEEKS ONLINE CERTIFICATION COURSE ON “BIG DATA COMPUTING” OFFERED BY SWAYAM-NPTEL, ON AUG-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)



This certificate is awarded to

NIRMALA S


for successfully completing the course

Big Data Computing

with a consolidated score of **72** %


Online Assignments	24.58/25	Proctored Exam	47.25/75
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Total number of candidates certified in this course: **5740**




Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur


Aug-Oct 2025
(8 week course)




Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur




Indian Institute of Technology Kanpur




Roll No: NPTEL25CS131S1269000775 To verify the certificate  No. of credits recommended: 2 or 3

>> M. PONANUPRIYA, II-AI&DS-B, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON “THE JOY OF COMPUTING USING PYTHON” OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)



This certificate is awarded to

M PONANUPRIYA


for successfully completing the course

The Joy of Computing using Python

with a consolidated score of **83** %


Online Assignments	23.97/25	Proctored Exam	58.76/75
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Total number of candidates certified in this course: **20403**




Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM


Jul-Oct 2025
(12 week course)




Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL25CS103S962301150 To verify the certificate  No. of credits recommended: 3 or 4

>> K.KALAI ARASI, M.MUTHUMALA, R.ABINAYA, P.ISHALAKSHMI, M.POOJA, II-AI&DS-A, T.PRINCY ROOPAVATHY, M. PRASITHA, M.MAGALAKSHMI, A.ARCHANA, P.ROSHINI , J. GULRASE , M. JEIESWARI, II-AI&DS-B, HAS SUCCESSFULLY PARTICIPATING IN THE EVENT "3D CHEF", ORGANIZED BY ECO CLUB & TAMIL MANDRAM, RIT, RAJAPALAYAM ON 16.10.2025.



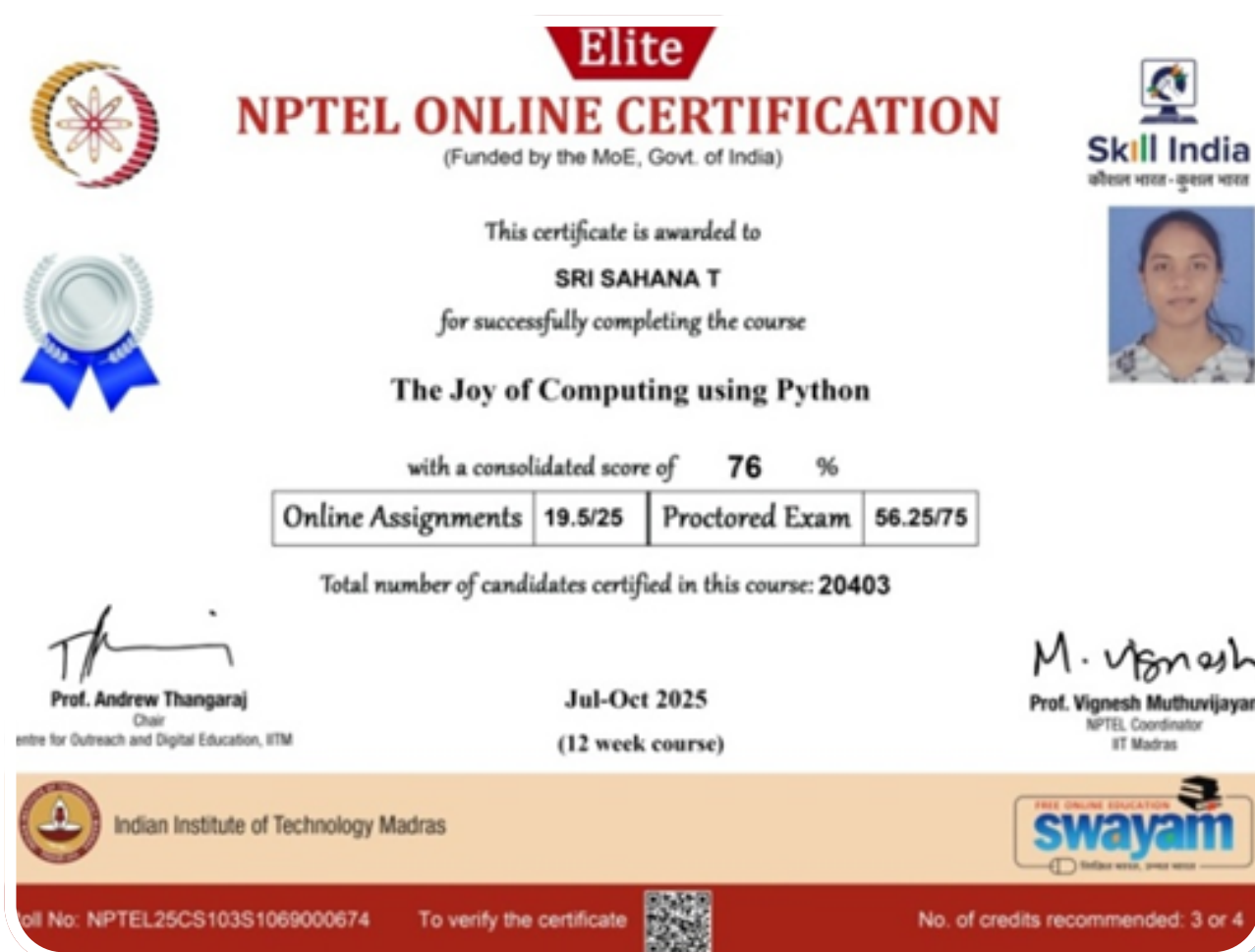
>> E.DHANALAKSHMI, K. MEERADHARSHNI , M.KRISHNAVENI , M.NITHIYA SRI , R.ANUSHREE, A.UMABHARATHI, III-AI&DS-B, HAS SUCCESSFULLY PARTICIPATING IN THE EVENT "3D CHEF" , ORGANIZED BY ECO CLUB & TAMIL MANDRAM, RIT, RAJAPALAYAM ON 16.10.2025.



>> M.ARUMUGA TAMIL SELVAN, M.MATHANKUMAR, G.KALEESWARAN, IV-AI&DS-B, HAS SUCCESSFULLY PARTICIPATING IN THE EVENT "3D CHEF" , ORGANIZED BY ECO CLUB & TAMIL MANDRAM, RIT, RAJAPALAYAM ON 16.10.2025.



>> T. SRI SAHANA, I-AI&DS-B, AWARDED 12 WEEKS ONLINE CERTIFICATION COURSE ON "THE JOY OF COMPUTING USING PYTHON" OFFERED BY SWAYAM-NPTEL, ON JUL-OCT 2025.



>> J.CHITRAKALA, A. HARI KRISHNAN, S.G.HARISHINI, S.D.JAGADIISH, M.MAHALAKSHMI, S.KAVYA SHREE, A.JEEVA SHRI, J.RAJADHARSINI, R.MUTHU GURU GOWSALYA, B.RATCHITA, R.SWETHA, IV-AI&DS-A, M.BRINDASRI, A.ABIRAMI, K. NITHYA SHREE, KARTHIKA LAKSHMI, S. SARAVANAKUMAR, L.VARSHA, C.SUBAMADHAVAN, M.THANGAMUTHUMARI PREETHI, IV-AI&DS-B, HAS SUCCESSFULLY COMPLETING THE TALENTNEXT COURSE ON “JAVA FULL STACK” DURING THE PERIOD JULY TO OCTOBER IN THE YEAR 2025, OFFERED BY WIPRO.



>> T.BLESSON PAUL, III-AI&DS-B, HAS SUCCESSFULLY PARTICIPATING IN THE "ZYPHER EVENT 2025 – BRIDGE THE GAP, BUILD THE CONNECTION", HELD ON 23 NOV., 2025, AT BOW BLISS-RESTAURANT & CAFE, COIMBATORE.



>> A.SUPRIYA DEVI, II-AI&DS-A, HAS SUCCESSFULLY COMPLETED THE 30 DAYS MASTERCLASS IN "FULL STACK DEVELOPMENT", FROM OCTOBER 9TH TO NOVEMBER 19TH 2025 , CONDUCTED BY NOVITECH R&D PRIVATE LIMITED.

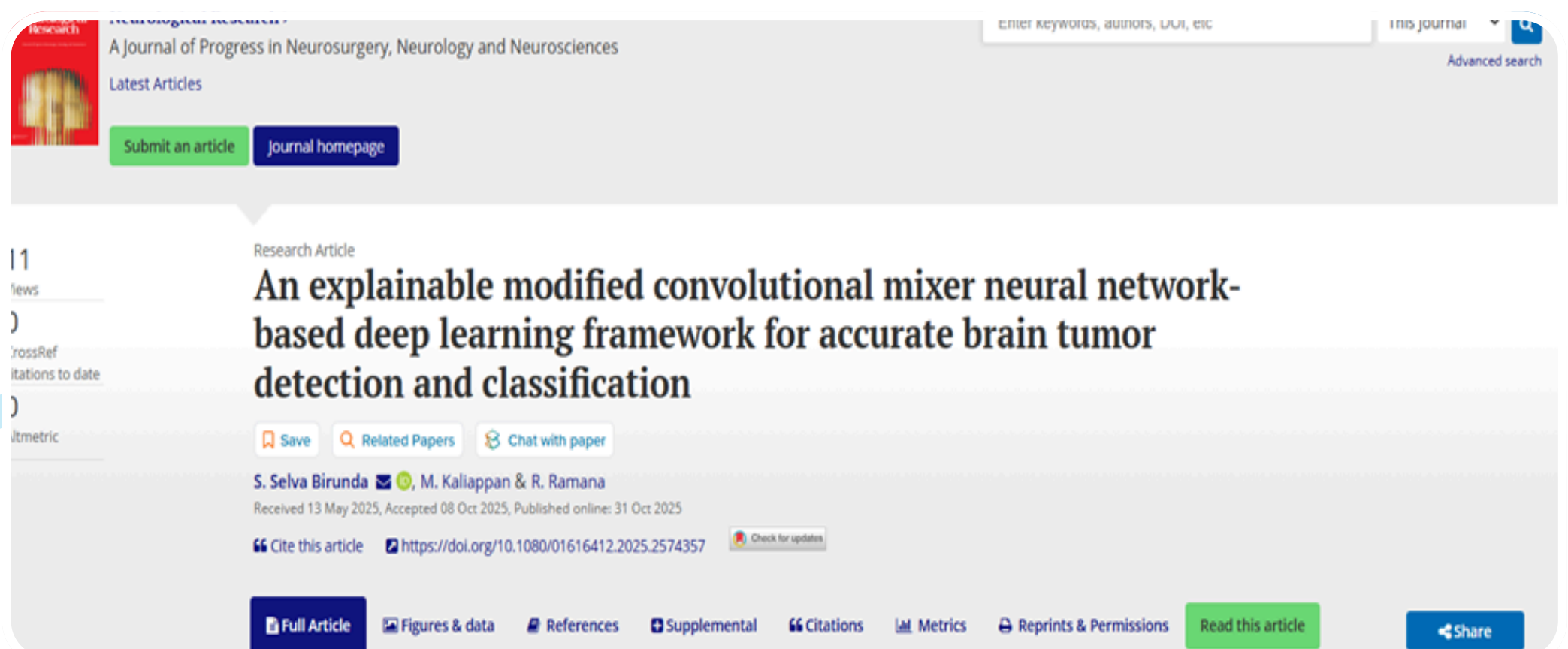


STUDENTS ACHIEVEMENT

>> J. GULRASE , M. JEIESWARI, II- AI&DS-B, HAS SUCCESSFULLY PARTICIPATING IN THE EVENT "3D CHEF" , GOT THE THIRD PLACE , ORGANIZED BY ECO CLUB & TAMIL MANDRAM, RIT, RAJAPALAYAM ON 16.10.2025.



>> S. SELVA BIRUNDA., M. KALIAPPAN, & R. RAMANA, (2025). AN EXPLAINABLE MODIFIED CONVOLUTIONAL MIXER NEURAL NETWORK-BASED DEEP LEARNING FRAMEWORK FOR ACCURATE BRAIN TUMOR DETECTION AND CLASSIFICATION. NEUROLOGICAL RESEARCH, 1–16. [HTTPS://DOI.ORG/10.1080/01616412.2025.2574357](https://doi.org/10.1080/01616412.2025.2574357).



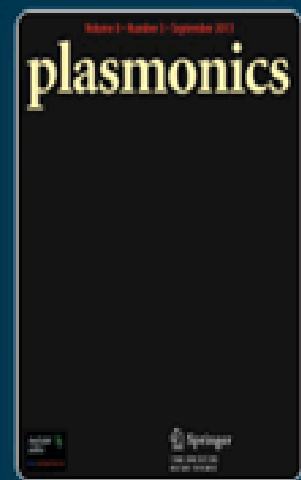
>> R.S. SELVI, R . R . MURUGESAN., J. WEKALAO., & A. RAJAKANNU, (2025).
ADVANCED MXENE-GOLD HYBRID PLASMONIC BIOSENSOR FOR EARLY
DETECTION OF TUBERCULOSIS BIOMARKERS WITH MACHINE LEARNING
OPTIMIZATION. PLASMONICS (NORWELL, MASS.). DOI:10.1007/S11468-025-03178-Y.

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Advanced MXene–Gold Hybrid Plasmonic Biosensor for Early Detection of Tuberculosis Biomarkers With Machine learning optimization

RESEARCH | Published: 28 October 2025

(2025) [Cite this article](#)



[Plasmonics](#)

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[R. Senthamizh Selvi](#) ✉, [Rajeshwari Ramaiah Murugesan](#), [Jacob Wekalao](#) ✉ & [Amuthakkannan Rajakannu](#)

[Access this article](#)

>> TRIPATHY, J., KALIAPPAN, M., CHELLATHEVAR, G. K., RAJ, J. R. F., SHANMUGASUNDARAM, R., ALAGARSAMY, M., ... ALGAHTANI, A. (2025). INTEGRATING BLOCKCHAIN AND IOT WITH ADVANCED PREDICTIVE MODELING FOR ENERGY EFFICIENT URBAN TRANSPORTATION SYSTEMS. SUSTAINABLE COMPUTING INFORMATICS AND SYSTEMS, 48(101208), 101208. DOI:10.1016/J.SUSCOM.2025.101208



Sustainable Computing: Informatics and Systems

Volume 48, December 2025, 101208



Integrating blockchain and iot with advanced predictive modeling for energy efficient urban transportation systems

Ask Copilot: Save time, read 10X faster with AI

Save

Related Papers

Evidence/Examples Used

Points Discussed

Conclusions

Biases or Limitations

Key Takeaways

Purpose

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Research Paper

Applied Thermal Enhancement in Solar Desalination: A Hybrid PV/T System with Fan and Scraper Assist

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ABSTRACT

Water is essential for all living beings, making the preservation of existing sources crucial to addressing water scarcity. However, many water sources are polluted or saline, making them unsuitable for drinking. Converting saline water into fresh water is vital for future demand management. A solar still (SS)-based desalination system effectively transforms polluted water into potable water, but traditional systems suffer from low efficiency due to less evaporation and condensation rate. This study proposes a hybrid PV/T (photovoltaic/thermal) system contains conventional SS with a metal scraper (CSSMS), double fan (CSSDF), and both combined (CSSMSDF). The obtained results reveals that the hybrid PV/T system integrated with CSSMSDF exhibits superior performance compared to the other cases, achieving minimum distillation production cost of 0.011 \$/L, maximum annual water yield of 948.663 L/m², payback period of 1.77 years (for energy) and 25.94 years (for energy). Specifically, it achieves additional energy/energy efficiency of (8.99 %, 0.52 %) over CSS, (7.69 %, 0.44 %) over CSSMS and (1.04 %, 0.008 %) over CSSDF.

1. Introduction

Water is an important and basic source for the survival of every human. Statistical data reveal that nearly 70 % Earth's surface is dominated by water. Its resource may be either naturally present or produced through human activities. The water that produced naturally is either freshwater or saline water that depends on the salinity level. In the world water resources, 96.5 % of world water is found in the oceans and seas with average salinity of 350 ppm, where ice caps shared 1.7 %, underground in aquifers is shared 1.6 %, and rivers & lakes shared only 0.015 %. The freshwater is naturally renewable which are found in rivers, lakes and in underground aquifers. Aquifers hold the estimated volume of (10,530*1000) km³ followed by the lakes & rivers with 91,000 km³ and 2100 km³ respectively. This water is used to serves various purposes with direct human consumption of 10–12 %, 15 % for irrigation and 70–75 % for agriculture purposes. The consumption of freshwater is higher its natural recharge rates. Although the surface water is common, it represents only 0.27 % of fresh water. Due to industrialization, urbanization the resources for water are increasingly polluted and leads to water scarcity [1,2]. So, it is most significant to get potable drinking water by converting polluted water for managing the demand of freshwater.

Desalination [3] is the process that take out the minerals and dissolved salts from the seawater or brackish water, thereby making it suitable for drinking with a parts per million of less than 500. The conventional desalination methods like vapor compression, humidification, dehumidification, ion exchange, electro dialysis, thin-film desalination and reverse osmosis are found to be complex and expensive process. Solar [4,5] still based desalination [6,7] has gained attraction in the arid areas which have abundant sunshine duration and scarce for fresh water. In SS, water is left in a container which is in open condition to evaporate and reach the air form. SS is functions to capture the evaporated water and condense it on the cold surface. The sluggish evaporation process of pure water leads for leaving whole contaminants within the system. The major benefits of solar stills [8] are, it is reliable system, low cost, simple maintenance and less environmental impact. Meanwhile, its drawback is the low conversion efficiency and

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