Date :- 07 Feb 2023

To

The principal

PDEA's College of Engineering

Manjari(Bk.)

Subject:- "Entrepreneurial decision-making."

As per above reference subject I am Prof.shirsath S S from mechanical Engineering department going to organize one day Seminar on "Entrepreneurial decision-making." for our college students on 10th of Feb 2023 at 11:00 am .

So I requested to please give the permission for this program,

Content of Seminar is given below

The key objective of this program is to Entrepreneurship and entrepreneurial cultures are receiving an increased amount of attention in both academic research and practice. The different fields of study have focused on the analysis of the characteristics of potential entrepreneurs and the firm-creation process.

Thanking You

Permitted for the Date to organize the Seminar.

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Date :-07 Feb 2023

Notice

All the student of mechanical engineering department here by informed that department is going to organize Seminar on "entrepreneurial decision-making." for our college students on 10th of Feb 2023 at 11:00 am. So all students from SE , TE BE attain above program.

Content of Seminar is given below

The key objective of this program is to Entrepreneurship and entrepreneurial cultures are receiving an increased amount of attention in both academic research and practice. The different fields of study have focused on the analysis of the characteristics of potential entrepreneurs and the firm-creation process.

Co-coordinator

HOD
Mechanical

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Pune District Education Association's
COLLEGE OF ENGINEERING
Manjari (Bk), Tal.- Haveli, Dist.-Pune.412307 (Maharashtra)
(Approved by A.I.C.T.E New Delhi, Affiliated to Savitribai Phule Pune University, Pune)
DEPARTMENT OF MECHANICAL ENGINEERING

Ref. No. : COEM/MECH/2023 /

Date :- 07 Feb 2023

To,

Dr. Dadashri Kamathe ,

Padmavati Industries

Pune

Subject: - Invitation as a Guest for Seminar.

Sir,

We are very proud to invite you as a Guest for Seminar for our students at P.D.E.A College of Engineering Manjari. Your profound knowledge in the field of Engineering and your motivational approach will help participants to understand challenges as Entrepreneurial in professional &Technological environment.

The key objective of this program is to provide a deeper understanding of the decision-making processes of entrepreneurs

Date: 10th of Feb 2023
Time- 11.00 AM
Venue: College of Engineering
Manjari,
Pune- 412307)

Thanking You,
Dr. S. A. Patil
HOD Mechanical Engineering

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Pune District Education Association's

COLLEGE OF ENGINEERING

Criteria 3, 3.1.3

(Approved by A.I.C.T.E New Delhi, Affiliated Savitribai Phule Pune University, Pune)

DEPARTMENT OF MECHANICAL ENGINEERING

Manjari (Bk), Tal.- Haveli, Dist.-Pune.412307 (Maharashtra)

Ref. No.: COEM/MECH/2023 /

Date: 10th of Feb 2023

To,

Dr. Dadashri Kamathe ,

Padmavati Industries

Pune

Subject: - Thanks letter

Sir,

We are very much thankful to you for accepting our invitation for delivering Guest for Seminar on 10th of Feb 2023 . We hope that you will find the experience personally rewarding for agreeing to attend in this wonderful opportunity to recognize talented, hardworking young people.

Your Directions are worth for our students in respective area.

Thanking You,

Date: 10th of Feb 2023

Yours sincerely,

Prof Shirsath S S

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

PDEA's College of Engineering
Department of Mechanical Engineering
SEMINAR ON Entrepreneurial decision-making
ACTIVITY REPORT

Title of Activity	One day PDEA's College of Engineering seminar on "Entrepreneurial decision-making." organised by Department of Mechanical Engineering PDEA's College Manjari (Bk) Pune.
Venue	Mechanical Seminar Hall
Date & Time	10th of Feb 2023, 11.00 am
Resource person	Mr.Dadashri Kamathe ,Padmavati Industries

Objective:

- knowledge about various laws that protect owners of "Entrepreneurial decision-making.".
- Mostly in the form of Entrepreneurial.

Time	Particulars
10.45 am to 11.00am	Welcome and Introduction of resource person By Department of faculty Prof. S A Patil
11.02 am to 12.15 am	Introduction "Entrepreneurial decision-making."
12.15 am to 12.30 pm	Question & answer session
12.30 pm	Vote of thanks

Description of the activity:

- The seminar began on a formal note by lighting of lamp in online mode followed by introduction of resource persons from Staff of Department of Mechanical Engineering
- Mr.Dadashri Kamathe delivered lecture on Introduction Entrepreneurial decision-making
- The seminar presentation was followed by an interactive session
- Feedback was obtained from the participants/delegates.

Outcome of the activity:

- Highlighting salient aspects of Entrepreneurial decision-making
- Imparting awareness about Entrepreneurial decision-making

Activity experience:

a. Outcome wise description of observations/explanations:
Students and faculty appreciated the initiative and participated actively in the seminar.
b. The concept/principles/procedures learnt as the result of activity:
The faculty and students were made aware about Entrepreneurial decision-making
c. Application of observation/experience in professional life/work:
The faculty and students would benefit by aiming Entrepreneurial
d. Summary &conclusion:
Total: faculties and students participated actively in the seminar and gained an insight into the various aspects of Entrepreneurial decision-making
9. Assessment of the activity outcomes:
The overall activity has been well received by the faculty and students.
Student count :-30
Faculty count :- 12

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

PDEA's

College of Engineering

Manjari (Bk.)

Department of Mechanical Engineering

Name of Event: - Seminar "Entrepreneurial decision-making.

Date:- 10th Feb 2023

Sr. No	Name of Student	Class	Sign
1	Vaishnavi Paygude	T.E mech	Paygude
2)	R. Bhaybhang	TE Mech	Rvbhang
3)	Andhale vaishnavi Ramdas	T.E	Andhale.
4)	Jadhav Suraj. D.	TE	
5.	Kundan. C. Jakhete	T.E Mech	Kundan
5.	Baburao B. Patil	TE mech	
6.	Anil. M Talasangi	TE mech	
(7)	Dhiraj Krushna Kedam	TE mech	
8.	Mayur Nitin Kale	T.E Mech	Mayur
10.	Rasane Kedarnath Nitin	T.E mech	
11.	Prathamesh S. Chavan	TE mech	
12.	Sagar Sunil Sonawane	T.E mech	
13.	Ranjan Dnyandeo Indulkar	TE mech	
14.	Atul Ramesh Bharti	T.E mech	
15.	Bhagat Sachin Shivaji	TE mech	
16.	Prakash Chougule	TE Mech	
17	Indu Shripati Dhumal	TE Mech	
18)	Barsale Ankit	T.E Mech	
19)	Dosane Nikhil	T.E Mech	
20	Hole Atharva Nitin	B.E Mech	

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Sr. No	Name of Student	Class	Sign
23	Kamble Anand	B.E Mech	
24	Killi Dilip Kumar	B.E Mech	
25	Pawar Nitin	B.E Mech	
26	Jay Nagpure	B.E Mech	
27	Handal Chandrashekar	B.E Mech	
28	Kumbhar Pravin	TE	
29	More Akshay	TE	
30	Kapse Ganesh	TE	
31	Nagapure Kunal	TE	
32	Aditi Pawar.	TE	

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Date :- 17th of Nov 2022

To

The principal

PDEA's College of Engineering

Manjari(Bk.)

Subject:- **"Intellectual Property Rights"**

As per above reference subject I am prof.shirsath S S from mechanical Engineering department going to organize one day Seminar on **"Intellectual Property Rights"** for mechanical engineering students on 22th of Nov 2022 at 11:00 am .

So I requested to please give the permission for this program,

content of the Our Session aims to cover the following points: (Duration -1 hr)

Content of Seminar is given below

The key objective of this program is to disseminate the importance of Design Mark and Patents Rights for faculty and researchers through case studies and discussion.

Thanking You

Permitted to organize the Seminar on the I-P-R

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Pune District Education Association's
COLLEGE OF ENGINEERING
Manjari (Bk), Tal.- Haveli, Dist.-Pune.412307 (Maharashtra)
(Approved by A.I.C.T.E New Delhi, Affiliated to Savitribai Phule Pune University, Pune)
DEPARTMENT OF MECHANICAL ENGINEERING

==========

Ref. No. : COEM/MECH/2022 / 18 th of Nov 2022

To,

Dr. I. B. Idage, NCL,

Pune

Subject: - Invitation as a Guest for Webinar.

Sir,

We are very proud to invite you as a Guest for Seminar for our students at P.D.E.A College of Engineering Manjari. Your profound knowledge in the field of Engineering and your motivational approach will help participants to understand challenges in professional &technological environment.

The key objective of this program is to disseminate the importance of Design Mark and Patents Rights for faculty and researchers through case studies and discussion.

Date: 22 th of Nov 2022
Time- 11.00 AM
Venue: College of Engineering
Manjari,
Pune- 412307)

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Thanking You,

Dr. S. A. Patil
HOD Mechanical Engineering

Date :-18 Nov 2022

Criteria 3, 3.1.3

Notice

All the student of mechanical engineering department here by informed that department is going to organize Seminar on **"Intellectual Property Rights"** for mechanical engineering department students on 22th of Nov 2022 at 11:00 am . So all students from SE , TE BE attain above program.

Content of Seminar is given below

The key objective of this program is to disseminate the importance of Design Mark and Patents Rights for faculty and researchers through case studies and discussion.

Co-coordinator

HOD

Mechanical

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Pune District Education Association's

COLLEGE OF ENGINEERING

(Approved by A.I.C.T.E New Delhi, Affiliated Savitribai Phule Pune University, Pune)

DEPARTMENT OF MECHANICAL ENGINEERING

Manjari (Bk), Tal.- Haveli, Dist.-Pune.412307 (Maharashtra)

Ref. No.: COEM/MECH/2022 /

Date: 22th of Nov 2022

To,

Dr. I. B. Idage, NCL,

Pune

Subject: - Thanks letter

Sir,

We are very much thankful to you for accepting our invitation for delivering Guest for Seminar on 22th of Nov 2022 . We hope that you will find the experience personally rewarding for agreeing to attend in this wonderful opportunity to recognize talented, hardworking young people.

Your Directions are worth for our students in respective area.

Thanking You,

Date: 22 th of Nov 2022

Yours sincerely,
Prof Shirsath S S

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

PDEA's College of Engineering
Department of Mechanical Engineering
WORKSHOP ON Intellectual Property Rights
ACTIVITY REPORT

Title of Activity	One day PDEA's College of Engineering workshop on " Intellectual Property Rights" organised by Department of Mechanical Engineering PDEA's College Manjari (Bk) Pune.in collaboration with CAD CAM Guru
Venue	Mechanical Seminar Hall
Date & Time	22th of Nov 2022, 11.00 am
Resource person	I B Idage , NCL

Objective:

- knowledge about various laws that protect owners of IP.
- Mostly in the form of patents.
- copyrights, and trademarks. Schedule:

Time	Particulars
10.45 am to 11.00am	Welcome and Introduction of resource person By Department of faculty Prof. S A Patil
11.02 am to	

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

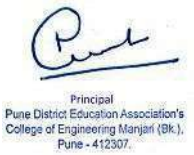
Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3



Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.1.3

POST PROGRAMME REPORT (PPR)
OF Entrepreneurship Awareness Program

1. Name & Address of Programme Implementing Agency (With Tel/ Fax /Email) : 3 X Q H ' L V W U L F W (G X F D W L R Q $ V V R F L
College of Engineering, Manjari (Bk), Pune -412307
020-26996275 (Reception), 020-26996625
Fax No. 020-26996275

2. Programme Location : PUNE DISTRICT EDUCATION ASSOCIATION'S
College of Engineering, Manjari (Bk), Pune -412307

3. Programme Date : 19, 20 & 21 December 2022

4. Name of the Coordinator : Prof. Deshpande Ajit S.

5. No. of candidate attended the programme: 80 (Male 62 Female 18) MBA Students

6. List of participants : ***ANNEXURE – I***

7. Program schedule : ***ANNEXURE – I I***

8. List of resource persons : ***ANNEXURE – III***

9 3 D U W L F L S D Q W ¶ V L ***ANNEXURE – IV***

10. Photographs of Programme: Attach one group photo, one classroom photo and one industry/institute visit photo

_____
Programme Coordinator

ANNEXURE – I

Criteria 3, 3.1.3

ENTREPRENEURESHIP AWARENESS PROGRAM

VENUE: PDEA's College of Engineering, Manjari (BK), Pune.

LIST OF PARTICEPENTS

Date: 19/12/2022 to 21/12/2022

ANNEXURE – II

PROGRAMME SCHEDULE

Date and Day	Session*	Subject / Topic	Faculty
18/12/2022	I	Inauguration- Camp Objective, Why Entrepreneurship (general concepts)	Sunil Mirashi
	II	Historical background-Indian values vis-à-vis Entrepreneur ship and the present scenario	Sandeep Rasalpurkar
	III	Identification of Business opportunities and Mechanisms of product selection	Sunil Mirashi
	IV	Technology-assistance from R&D labs and other institutions on choice of technology etc	Anil Donawade
19/12/2022	I	How to start a SSI unit (General concept about the Govt. formalities, rules & regulation, location, and different aspect of an industrial venture)	Mr Abhijeet Dandwate
	II	Technical & commercial aspects of SSI unit (General concept only)	Mr Abhijeet Dandwate
	III	Financial aspects of SSI unit including salient features of a project report	Arun khemlani
	IV	Schemes of assistance and Support available from Govt. agencies, banks, financial institutions, SFCs etc	Arun khemlani
20/12/2022	I	Creativity and business- the man behind the venture -the behavioral scientist's approach	Sandeep Rasalpurkar
	II	Communication skills for better results in business	Sunil Mirashi
	III	Factory visit and experience sharing by existing entrepreneur	Sunil Mirashi

* = Each session is one hour fifteen minutes

Criteria 3, 3.1.3

ANNEXURE – III

LIST OF FACULTY / RESOURCE PERSON

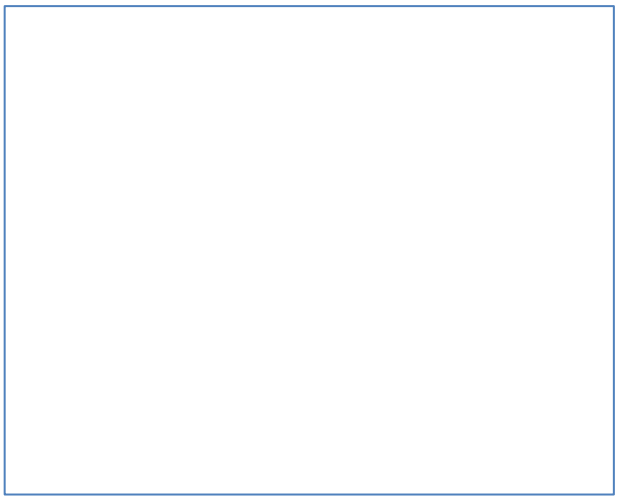
Sr. No.	Name and Address	Designation	Organisation
1.	Mr. VijayTupe	Bank Branch Manage	Janata Sahakari Bank Ltd, Pune
2.	Mr. Sandeep Rasalpurkar	Entrepreneur	Self Employed, Speaker on Soft Skill Development & Entrepreneurship.
3.	Mr. Sunil Mirashi	Director	Divine Corporation, Training & consulting
4.	Mr. Rahul Shilpakar	Assistant Professor	Dhole Patil College Of Engineering, Pune.
5.	Mr. Sunil Patil	Practicing Lawyer	Senior Judge, Juvenile Justice Board, Pune District
6.	Mr Abhijeet Dandwate	principal	Dhole Patil College Of Engineering, Pune. Technical Aspects of Entrepreneurship
7.	Mr Pramod Dasturkar	Assistant Professor	K.J.COLLEGE OF ENGINEERING, Pune.
8.	Mr Arun Khemlani	Certified Financial Planner	Self Employed. Speaker on Financial aspects of Business Ideas and Bank Proposals, Basic Entrepreneurial Finance Education.
9.	Mr. Suresh Todkar	Professor	Ness Wadia College, Pune
10.	Mrs. Vidyulata Gawade	Visiting Faculty	Soft Skill Trainer
11.	Mr. Anil Donawade	Training & Placement Officer	AISSMS's Polytechnic, Pune
12.	Mr. Shahu Jadhav	Project Consultant	Self Employed

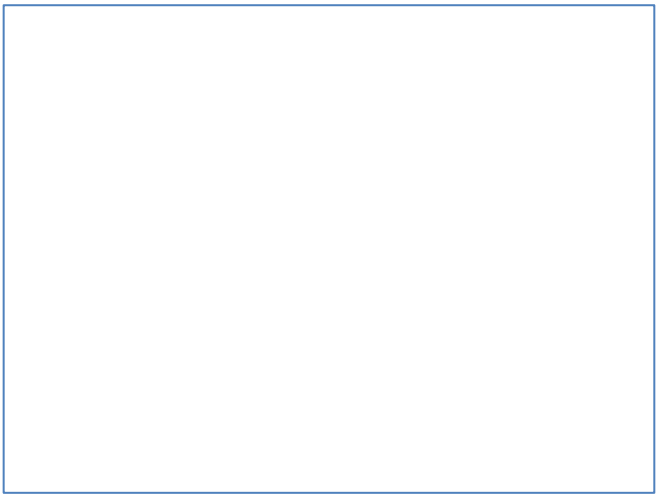
Criteria 3, 3.1.3

ANNEXURE – IV

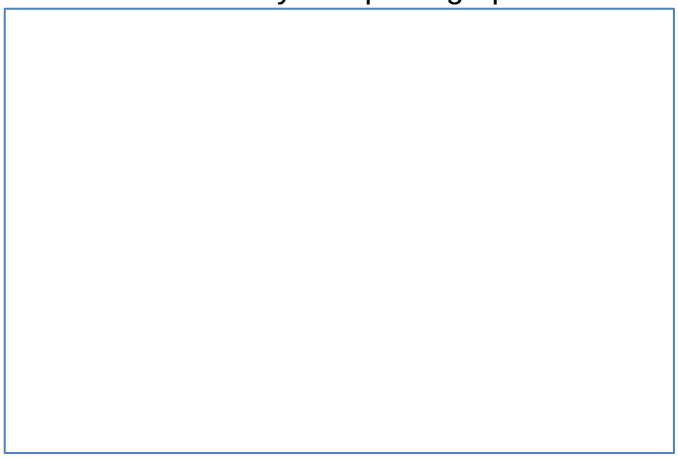
LIST OF INDUSTRY VISITED

ClassRoom Photos





Industry visit photograph



Criteria 3, 3.1.3

ANNEXURE – I
V

FEED BACK ANALYSIS OF PARTICIPANT - SUMMARY

3 U R J U D P P H /R F D W L R Q 3 ' ($ ¶ V &R O O H J H R I (Q J L Q H H U L Q J 0 D Q M

Date: 19, 20 & 21 December 2022
Total No. of Participants: 80 Nos.

Q.1) From where you got the information about this programme?

a) Pamphlets / Broacher	00 Nos. (0.00 %) (0080)
b) News paper Advertisement	00 Nos. (0.00 %) (00/80)
c) Posters/ Hand Bills	00 Nos. (0.00 %) (00/80)
d) Other (Notice Board):	80 Nos. (100.00%) (80/80)

Q.2) What is your opinion about the duration of Programme?

a) Short	15 Nos. (17.64 %) (15/80)
b) Adequate	62 Nos. (72.94 %) (72/80)
c) Long	03 Nos. (09.41 %) (08/80)

Q.3) Did you find the Programme useful?

a) Very much	73 Nos. (80.88 %) (73/80)
b) To some extent	06 Nos. (12.94 %) (11/80)
c) Not useful	01 Nos. (01.17 %) (03/80)

Q.4) Did it fulfill your expectations?

a) Yes	69 Nos. (86.20 %) (69/80)
b) To some extent	06 Nos. (12.94 %) (11/80)
c) No	05 Nos. (05.90 %) (05/80)

Q.5) Planning of the Programme

a) Excellent	71 Nos. (88.75 %) (71/80)
b) Very good	07 Nos. (10.58 %) (09/80)
c) Good	02 Nos. (05.90 %) (05/80)
d) Satisfactory	00 Nos. (00.00%) (00/80)
e) Poor	00 Nos. (00.00%) (00/85)

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Programme Completion Report

ENTREPRENEURSHIP AWARENESS PROGRAM

1. Name of the Organization:	PDEA's College of Engineering, Manjari (Bk), Pune
2. Programme:	**Entrepreneurship Awareness Program**
3. Programme Location:	PDEA's College of Engineering, Manjari (Bk), Pune
4. Name of Coordinator:	Prof. Ajit S. Deshpande
5. Date of launching Promotional Activities:	01/12/2022
6. Date of Selection (interview):	15/12/2022
7. Date of Commencement of Programme:	19/12/2022
8. Date of Completion of Programme:	21/12/2022
9. Number of participants:	80 Nos.
Male:	62 Nos.
Female:	18 Nos.
10. Trade:	MBA 1st & 2nd Year Students

Date: 10/01/2023

Signature of Programme Coordinator

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

Criteria 3, 3.1.3

PDEA's,

College of Engineering, Manjari (Bk), Pune-412307

Department:- First Year Engineering

INDUCTION PROGRAMME

ACADEMIC YEAR: 2022-23

Lecture on "Orientation Programme for First Year Engineering Students" by Mr. Sanjay Deoghare

On 15-11-2022 Session:- I

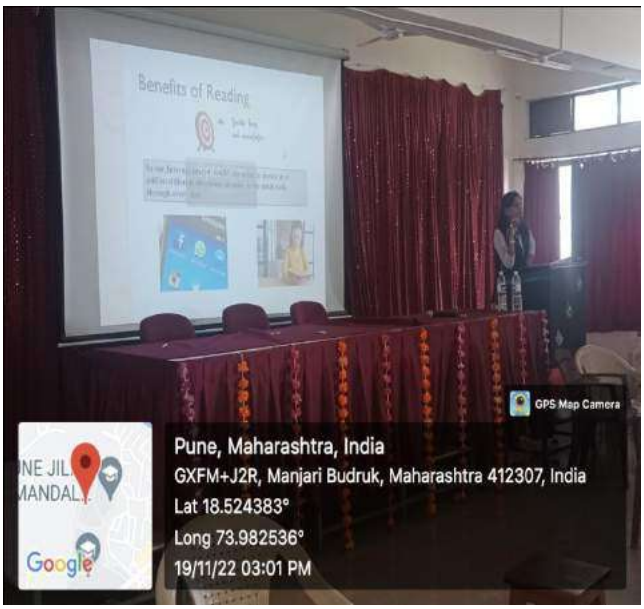
Criteria 3, 3.1.3

Criteria 3, 3.1.3

Lecture on “Value Education for Personality Development” by Prof. V. D. Navle On 15-11-2022 Session:- II

Lecture on "Training and Placement" by Prof. A. A. Jadhav On 19-11-2022 Session:- I

Lecture on “Importance of Reading and Value of Library” by Prof. Sonober Kazi On 19-11-2022 Session:- II



PDEA's, College of Engineering, Manjari Bk, Pune – 412307.

FE Induction Program 2022-23.

SWOT Analysis

Trainer Name : Prof.V.D.Navale

Name – Sakshi Nilesh Kapare

Date - 18/11/22

Class – F.E

Branch – Computer

My Strengths –

1 Consistence
2 Positive thinking
3
4
5

My Weaknesses –

1 Lack of communication
2 Lazy
3 Soft voice
4
5

My Opportunities –

1 Education
2
3

My Threats -

1 Waking up late in morning
2

Sakshi
Signature

Pune District Education Association's
COLLEGE OF ENGINEERING
Manjari (BK.), Pune - 412 307 (Maharashtra) India
Ph : 020 - 26996625 | Fax : 020 - 26996275 | E-mail : coem@pdeapune.org | Web : www.pdeacoem.org
Approved by A.I.C.T.E., New Delhi No. 740-89-316 E/ET/98 | A.I.S.H.E. Code No. C-41924
Affiliated to Savitribai Phule Pune University, Pune | DTE Code - 6206 | Pune Uni. Code : 4026 (Engg.), 1223(MBA)
• NAAC Accredited •

Ref. No. : COEM/TP/2022-23/400

Date : 04/05/2023

To,

Ms. Rashmi Rani,

Skill Trainer,

Rubicon, Pune

Subject: - **Invitation for conduction of Rubicon Skill WORKSHOP (4-Days)**

Respected Sir,

We, on behalf of PDEA's College Of Engineering, Manjari, are delighted to welcome you as a guest to the **"Rubicon Skill WORKSHOP (4-Days) for all students"** from 9th May to 12th May 2023 at P.D.E.A.'s College Of Engineering, Manjari. Your extensive expertise in the topic of Career skills, Soft Skills, Interview preparation etc will help students be aware and be a good impactful person in their further life.

Thank You.

Yours sincerely

Recieved

Prof. Anuradha A. Jadhav
Training & Placement Officer
Pune District Education Association's
College of Engineering, Manjari (BK.),
Pune - 412 307

Pune District Education Association's College of Engineering Manjari (Bk.) Pune - 412307

Dr. R. V. Patil.
Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.)
Pune - 412307

Pune District Education Association's
COLLEGE OF ENGINEERING
Manjari (BK.), Pune - 412 307 (Maharashtra) India
Ph. 020 - 26996825 | Fax 020 - 26996275 | E-mail coem@pdeapune.org | Web : www.pdeacoem.org
Approved by A.I.C.T.E., New Delhi No. 740-89-316 E/ET/98 | A.I.S.H.E. Code No. C-41924
Affiliated to Savitribai Phule Pune University, Pune | DTE Code - 6206 | Pune Uni. Code : 4026 (Engg.), 1223(MBA)
• NAAC Accredited •

Ref. No. : COEM/TP/2022-23/399

Date: 12/05/2023

Criteria 3, 3.1.3

To,

Ms. Rashmi Rani,

Skill Trainer,

Rubicon, Pune

Subject: - **Letter of Appreciation.**

Respected Sir,

You have our sincere gratitude for agreeing to conduct sessions from 9th May to 12th May 2023, about the **"Rubicon Skill WORKSHOP (4-Days) for all students"** as well as For agreeing to attend and conduct this fantastic opportunity to recognise and orient outstanding, diligent young students, we sincerely hope that the experience will be personally fulfilling for you. Our students got the information which will be useful for their lifetime.

Your Direction is worth it for us.

Thank You.

Yours sincerely

Received

Prof. Anuradha A. Jadhav
Training & Placement Officer
Pune District Education Association's
College of Engineering, Manjari (BK.),
Pune - 412 307

Pune District Education Association's College of Engineering

Dr. R. V. Patil.
Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

PUNE DISTRICT EDUCATION ASSOCIATION'S

COLLEGE OF ENGINEERING

Manjari (BK), Pune - 412307 (Maharashtra) India

NAAC Accredited

Approved by AICTE, New Delhi No. 740-89-316 E/ET/98 (Year of Establishment - 1998)
Affiliated to Savitribai Phule Pune University, Pune | DTE Code: 6206 | Pune Uni. Code: 4026(Engg.)
1223(MBA)

Training & Placement Department

Criteria 3, 3.1.3

Date: 12/05/2023

To,
The Principal,
PDEA's COEM, Pune.

Subject : Payment Receival

Respected Sir,

Conducted drive for company - Rubicon skill workshop 9th may to 12th may 2023

and Selected NA Students and Shortlisted NA Students. Package given for the students is Rs. NA

The Travelling / Overall allowances received amounting Rs. 400/-

Looking forward to your cooperation for the betterment of students.

Thank You.

Name - Ms. Rashmi Rani

Company Name - Rubicon [4 Days Workshop]

Yours Sincerely,

Recieved - 14th July -

Criteria 3, 3.1.3

Pune District Education Association's

College of Engineering

Manjari(Bk), Pune – 412307

Name :- Mrs Rashmi Rani

Account :-

Department :- Trainer for skill workshop (Arranged by TPO) By Rubicon

Voucher No :- 02
Date :- 12/05/23

Particulars	Rate	Amount
1) TA for 01 Day	Rs. 400/-	Rs 400/-
		Rs. 400/-

eceived From the Principal, College of Engineering Manjari (Bk), Pune- 07
upees (In word) :-

specified above by Cash/Cheque No. Date :- 12/5/23
assed for Payment.

Recieved -

Principal
P.D.E.A's
llege of Enginnering
Manjari(Bk), Pune-07

Accountant
P.D.E.A's
College of Engineering
Manjari(Bk), Pune- 07

Revenue Stamp Over Rs.500/-

P.D.E.A'S COEM ENTREPRENEURSHIP CELL
VISIT TO STARTUP EXPO AT COEP'23

Criteria 3, 3.1.3

E-Cell Member , Shahid Shaikh visited to Startup Expo Organized By BHAU's Innovation & Entrepreneurship Cell, at COEP

College of Engineering Pune Wellesley Rd, Shivajinagar, Pune, Maharashtra 411005

Criteria 3, 3.1.3

P.D.E.A'S COEM ENTREPRENEURSHIP CELL
VISIT TO STARTUP EXPO AT COEP'23

P.D.E.A'S COEM ENTREPRENEURSHIP CELL
IDEA GENERATION COMPETITION'23

Criteria 3, 3.1.3

P.D.E.A'S COEM
ENTREPRENUERSHIP CELL

P.D.E.A'S COEM
IN ASSOCIATION WITH
ENTREPRENUERSHIP CELL
PRESENTS
IDEA GENERATION COMPETITION '23

Event Posters

Prof. Anuradha A Jadhav - Oreinting the participants and audience

Criteria 3, 3.1.3

P.D.E.A'S COEM ENTREPRENEURSHIP CELL
IDEA GENERATION COMPETITION'23

E-Cell Team

Criteria 3, 3.1.3

EAD Drive Pune 2020-22

International Journal on Recent and Innovation Trends in Computing and Communication
ISSN: 2321-8169 Volume: 11 Issue: 4
DOI: https://doi.org/10.17762/ijritcc.v11i4.6453
***Article Received**: 06 February 2023 **Revised**: 15 March 2023 **Accepted**: 25 March 2023*

Context Mining with Machine Learning Approach: Understanding, Sensing, Categorizing, and Analyzing Context Parameters

Mrs.Pranali G.Chavhan[1], Dr. Ritesh V. Patil[2], Dr. Parikshit N.Mahalle[3]
[1]Department of Computer Engineering
Vishwakarma Institute of Information Technology
Pune, India
pranali.chavhan@viit.ac.in
[2]Department of Computer Engineering
PDEA's College of Engineering, Manjari (Bk.)
Pune, India
rvpatil3475@yahoo.com
[3]Department of Computer Engineering
Vishwakarma Institute of Information Technology
Pune, India
parikshit.mahalle@viit.ac.in

Abstract— Context is a vital concept in various fields, such as linguistics, psychology, and computer science. It refers to the background, environment, or situation in which an event, action, or idea occurs or exists. Categorization of context involves grouping contexts into different types or classes based on shared characteristics. Physical context, social context, cultural context, temporal context, and cognitive context are a few categories under which context can be divided. Each type of context plays a significant role in shaping our understanding and interpretation of events or actions. Understanding and categorizing context is essential for many applications, such as natural language processing, human-computer interaction, and communication studies, as it provides valuable information for interpretation, prediction, and decision-making.

In this paper, we will provide an overview of the concept of context and its categorization, highlighting the importance of context in various fields and applications. We will discuss each type of context and provide examples of how they are used in different fields. Finally, we will conclude by emphasizing the significance of understanding and categorizing context for interpretation, prediction, and decision-making.

Keywords-Context, Context awareness, Taxonomy of Context, Internet of Behaviour, Ubiquitous of Computing, User preference

I. INTRODUCTION

Context is a fundamental concept that plays a significant role in shaping our understanding and interpretation of events, actions, or ideas. Context is a fundamental concept that refers to the background, environment, or situation in which something occurs or exists. It is a crucial aspect of human understanding, and it plays a vital role in shaping our perception of events or actions. In different fields, such as linguistics, psychology, and computer science, context is essential for interpreting and analyzing various phenomena. Understanding context is crucial for natural language processing, machine learning, decision-making, and communication studies.

Context can be categorized in different ways, and each categorization defines a set of parameters that characterize the context. These parameters provide a framework for analyzing and interpreting context. Some of the common parameters used for categorizing context include:

1) *Physical Context*: Physical context refers to the physical environment in which an event or action occurs. The parameters that define physical context include location, weather conditions, and objects present in the surroundings. For example, the physical context of a conversation could be a coffee shop, a park, or an office[1].

2) *Social Context:* Social context refers to the social setting or relationships between people involved in an event or action. The parameters that define social context include the relationship between the people involved, their roles, and their social status. For example, the social context of a conversation could be a formal meeting, a casual chat, or a job interview[1][2].

3) *Cultural Context:* Cultural context refers to the cultural norms, values, and beliefs that influence an event or action. The parameters that define cultural context include language, customs, traditions, and religion. For example, the cultural context of a conversation could be a Western or Eastern culture, a religious or secular context.

Computer Systems Science & Engineering
DOI: 10.32604/csse.2023.026254
Article

Tech Science Press

Multi-attribute Group Decision-making Based on Hesitant Bipolar-valued Fuzzy Information and Social Network

Dhanalakshmi R[1], Sovan Samanta[2], Arun Kumar Sivaraman[3], Jeong Gon Lee[4,*], Balasundaram A[5], Sanamdikar Sanjay Tanaji[6] and Priya Ravindran[7]

[1]Department of Computer Science and Engineering, KCG College of Technology, Chennai, 600097, Tamil Nadu, India
[2]Department of Mathematics, Tamralipta Mahavidyalaya, West Bengal, 721636, India
[3]School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, 600127, Tamil Nadu, India
[4]Division of Applied Mathematics, Wonkwang University, Iksan-Si, Jeonbuk, 54538, Korea
[5]School of Computer Science and Engineering, Center for Cyber Physical Systems, Vellore Institute of Technology, Chennai, 600127, Tamil Nadu, India
[6]Department of Instrumentation Engineering, PDEAs College of Engineering, Manjari, 412307, Pune, India
[7]Engineering and Research Services, HCL Technologies, Chennai, 600119, India
*Corresponding Author: Jeong Gon Lee. Email: jukolee@wku.ac.kr
Received: 20 December 2021; Accepted: 27 February 2022

Abstract: Fuzzy sets have undergone several expansions and generalisations in the literature, including Atanasov's intuitionistic fuzzy sets, type 2 fuzzy sets, and fuzzy multisets, to name a few. They can be regarded as fuzzy multisets from a formal standpoint; nevertheless, their interpretation differs from the two other approaches to fuzzy multisets that are currently available. Hesitating fuzzy sets (HFS) are very useful if consultants have hesitation in dealing with group decision-making problems between several possible memberships. However, these possible memberships can be not only crisp values in [0,1], but also interval values during a practical evaluation process. Hesitant bipolar valued fuzzy set (HBVFS) is a generalization of HFS. This paper aims to introduce a general framework of multi-attribute group decision-making using social network. We propose two types of decision-making processes: Type-1 decision-making process and Type-2 decision-making process. In the Type-1 decision-making process, the experts' original opinion is proces for the final ranking of alternatives. In Type-2 decision making processs, there are two major aspects we consider. First, consistency tests and checking of consensus models are given for detecting that the judgments are logically rational. Otherwise, the framework demands (partial) decision-makers to review their assessments. Second, the coherence and consensus of several HBVFSs are established for final ranking of alternatives. The proposed framework is clarified by an example of software packages selection of a university.

Keywords: Group decision-making; aggregation operators; hesitant bipolar-valued fuzzy set

Advisory System for Biodiesel Production

Satish A. Patil[1,a)] and R. R. Arakerimath[2,b)]

[1]*Mechanical Engineering Department, PDEA's College of Engineering,Manjari (Bk), Pune. (MS),India*
[2] *Mechanical, G H Raisoni College of Engineering and Management, Wagholi, Pune,Savitribai Phule Pune University, Pune, India.*

a) corresponding author: sapcoeh@rediffmail.com
b) rrarakerimath@gmail.com

Abstract: Advisory system is the decision-maker for many problems. That will help to frame the solutions for themselves. Transesterification is one of the best methods for biodiesel synthesis from vegetable oils. Here the study of optimization of Transesterification is done by using three different heterogeneous catalysts separately from Karanja oil. Results are analyzed by the Taguchi method for input parametric optimization for Karanja biodiesel production using three different heterogeneous catalysts. Three different mathematical models are obtained by using the Taguchi method. These mathematical models are used for the development of the advisory system. The advisory system is developed by using Visual Basic software. Only by putting the input parameters, one can obtain output parameters without any experimentation work. Keywords—Biodiesel, Transesterification, Heterogeneous, Catalyst, Optimization

INTRODUCTION

In unstructured situations, advisory systems are used to contribute to decision-making. In the advisory systems research work, it is found that for many problems the decision-maker needs the identification of the problem. That will help to frame the solutions for themselves. As we know Transesterification is one of the best methods for biodiesel synthesis from vegetable oils. There is a need for optimization of this process using the heterogeneous catalyst and find out the best heterogeneous catalyst. So, the study of optimization of Transesterification is done for three different heterogeneous catalysts separately from Karanja oil. This study is helped to find out the best heterogeneous catalyst for biodiesel production [1, 4].

Twenty-five numbers of experiments were conducted as per Taguchi developed array using the given parametric conditions namely the molar ratio (MR) with catalyst concentration (CC) maintaining process temperature (PT) and time required (RT) controlling stirring (agitating) speed (SS) for three different catalysts [6,9]. The Karanja oil yield values obtained through the experimentations have been noted [6, 8]. Results were analyzed by the Taguchi method for input parametric optimization for Karanja biodiesel production using three different heterogeneous catalysts. Three different mathematical models are obtained by using the Taguchi method. These mathematical models are used for the development of the advisory system. This advisory system is developed for obtaining the output parameter values and graphs by just putting the input parameter values. The advisory system is developed by using Visual Basic. Only by putting the input parameter values, one can obtain output yield value without any experimentation work.

Biodiesel

Alternated fuel to petrodiesel may have suitable and technically acceptable. Biodiesels are produced from the fats of animals and mostly from vegetable oils. These are treated as an alternative to diesel engines. The various plants give edible or non-edible oils [5]. These contain various edibles oil plants like soybean, palm, sunflower, rapeseed, etc., and non-edibles oil plants like Jatropha, Mahua, Castor, Neem, Karanja, etc. In India biodiesel is obtained from

9th National Conference on Recent Developments in Mechanical Engineering [RDME 2021]
AIP Conf. Proc. 2469, 020021-1–020021-10; https://doi.org/10.1063/5.0080220
Published by AIP Publishing. 978-0-7354-4188-0/$30.00

Analysis of Heterogeneous Catalyzed Castor oil Biodiesel

Satish A. Patil[1, a)] , R. R. Arakerimath[2,3 b)]

[1] *PDEA'S College of Engineering, Manjari (Bk), Pune, India*
[2]*G H Raisoni College of Engineering and Management, Wagholi, Pune, India*
[3]*Savitribai Phule Pune University, Pune, India*

Corresponding author: [a)]sapcoeh@rediffmail.com, [b)] rrarakerimath@gmail.com

Abstract. The different catalysts are having an important key role for production (synthesis) of biodiesel. The heterogeneous catalysts are economically and commercially used especially in biodiesel industries. These catalysts are produced from the waste materials at a minimum cost. There is an interesting research area to find such waste materials for the preparation of the catalyst. Such materials are having a wide source and low cost. These eco-friendly waste catalysts can also use in some other organic reactions. Here Castor oil is used for biodiesel production through transesterification process. Castor oil biodiesel and its blends are used for testing of the IC engine. The analysis of results for performance and emission are discussed here. The results of different Castor Biodiesel blends are compared with petrodiesel. From the observations and results, this is concluded that the Castor biodiesel blends up to 20% by volume with diesel fuel can be replaced the pure diesel for existing diesel engine running. There are fewer emissions of exhaust gases without any drastic changes the conventional engines and with not losing any power outputs. This may help a large for reducing exhaust gas air pollution.

Keywords: Biodiesel, Synthesis, Transesterification, Catalyst, Heterogeneous.

INTRODUCTION

Today, the world is getting evolved in every sector of life. The population is increasing on each successive day at a tremendous rate. As a result of this ever-increasing human population, there are growing needs about everything which are fulfilled by nature only. The India having the huge challenges for meeting the energy needs. Diesel is commonly used in the industries as well as for the transportation purpose [1]. India as an agricultural country requires a large amount of diesel to meet the diesel requirement to run the agricultural equipment based on the diesel engine. The diesel engines are commonly used to produce the power in the medium and heavy-duty applications because of their lower fuel consumption and portability. The performance and emission results using Castor biodiesel blends obtained are analyzed and discussed.

RESEARCH WORK

In this research work mainly there are two different experimental setups are used. One is for the production of biodiesel from vegetable oil using the transesterification process. Another is for testing of engine for performance, emission analysis of the engine with diesel and castor biodiesel blends [2]. Performance and emission characteristics of biodiesel blends obtained are studied. These results are compared with diesel fuel.

3rd International Conference on Computational and Experimental Methods in Mechanical Engineering (11-13 February-2021)
AIP Conf. Proc. 2427, 020009-1–020009-10; https://doi.org/10.1063/5.0100846
Published by AIP Publishing. 978-0-7354-4312-9/$30.00

ISSN: 0974-5823 Vol. 7 No. 4 April, 2022

International Journal of Mechanical Engineering

Biodiesel Fueled Engine Vibration Studies by Taguchi Method and Results Validation by ANN

Satish A. Patil[1], Amit R. Patil[2], Bhupendra S. Patil[3], Dipak S. Patil[4], R. R. Arakerimath[5]

[1]Mechanical Engineering Department, PDEA's College of Engineering, Manjari (Bk), Savitribai Phule Pune University, Pune, (MS), India.

[2] Mechanical Engineering Deparment, MES College of Engineering, Savitribai Phule Pune University, Pune, India.

[3]Mechanical Engineering Deparment, Government Engineering College, Bharuch, Gujarat, India 392002

[4]Mechanical Engineering Deparment, G. H. Raisoni College of Engineeering and Management, Pune, MH, India

[5]Mechanical Engineering Deparment, JSPM's RSCOE, Thatawade, Savitribai Phule Pune University, Pune, India.

*Corresponding Author

Abstract – *Renewable and environmentally friendly biodiesel is a fuel that can provide comparative engine performance. The diesel engine performance, noise, and vibration parameters were studied. Vibration and noise production due to the combustion of fuel in engines have a direct effect on engine performance. Therefore, in this paper, the study of three different vibration parameters are mainly displacement, velocity, and acceleration was carried out with both diesel and biodiesel blends. Kirloskar makes single-cylinder, 4 strokes, water-cooled, 3.5 KW at 1500 rpm, diesel engine with water-cooled eddy current dynamometer was used. The output vibration parameters were measured using vibrometer, engine noise by noise meter, and also other measuring instruments. The testing of the engine was carried out at different loads as per the orthogonal array obtained by Minitab from the input parameters. The orthogonal array selection was based on three parameters and the four levels for each parameter. The experimental output conditions with optimal input parameters blend B15, applied load 7 kg, compression ratio18 are vibration parameters such as Displacement 0.458 mm, Velocity 23.68 mm/s, and Acceleration 345.5m/s2. The regression plot for acceleration obtained by Taguchi is compared with the ANN regression plot. There is a similarity in these plots. Hence results are validated by ANN.*

Keywords: *Biodiesel, Karanja oil, Velocity, Acceleration, Vibration.*

I. Introduction

Utilization of diesel fuels in various zones and having importance for the national economy, the alternative to diesel fuel must be comparable, technically, and economically acceptable. Biodiesel is obtained by the transesterification process from different oils of vegetable and animal fats which are renewable sources with alcohol [1]. Due to the environmentally friendly properties of biodiesel, it has an internationally focused substitute for diesel fuel. Biodiesel may be used in the existing C I engine without any alterations [1].

Engine body vibrations give information about its operating parameters and the physical condition of the engine. It could be measured by attaching a vibrometer on the top of the engine head. Some researchers are working on the engine vibrations using biodiesel blends in comparison with petrodiesel over the world [2]. The study is focused differently to extract useful information about diesel engine operating conditions. Here the diesel engine vibration parameters were studied with given input parameters to the engine. The three parameters used in vibration measurement are mainly displacement, velocity, and acceleration. Velocity and acceleration are much important depending on the frequency range. An accelerometer was mounted vertically on the engine head using a powerful magnet supplied [3].

Excess vibrations wear out different engine components, loosening affect the alignment of foundation, damage of supporting structure. The maintenance cost increases because of more component failures and unplanned operations [4]. It can also affect the balance, risk of fatigue components, decreased engine efficiency, and finally engine life. So, it's essential to search the effect of different biodiesel blends on engine life. The study of different parameters of vibrations is more important because they affect engine performance as well as engine life [4]. It's a necessity to enhance engine life by optimal use of blends by analysis of vibrations of the engine. And to find out the best biodiesel blends for better performance and enhanced engine life.

II. Experimental Setup

In this experimental setup a Kirloskar made, variable compression ratio engine has used. The detailed engine specifications have as below. The computer controlled system test bed has equipped with eddy current dynamometer, thermocouples, tachometer, flow meters, and all other required measuring instruments.

Journal of King Saud University – Engineering Sciences 35 (2023) 40–52

HOSTED BY

Contents lists available at ScienceDirect

Journal of King Saud University – Engineering Sciences

journal homepage: www.sciencedirect.com

Original article

Fabrication of medium scale 3D components using a stereolithography system for rapid prototyping

Baban K. Suryatal [a,b,*], Sunil S. Sarawade [c], Suhas P. Deshmukh [d]

[a] Department of Mechanical Engineering, Sinhgad College of Engineering, Vadgaon (Bk.), S. P. Pune University, Pune, Maharashtra 411041, India
[b] Department of Mechanical Engineering, PDEA College of Engineering, Manjari (Bk.), S. P. Pune University Pune, Maharashtra 412307, India
[c] Department of Mechanical Engineering, MES College of Engineering, S. P. Pune University, Pune, Maharashtra 411001, India
[d] Department of Mechanical Engineering, Government Engineering College, Karad, Maharashtra 415124, India

ARTICLE INFO

Article history:
Received 24 August 2020
Accepted 17 February 2021
Available online 25 February 2021

Keywords:
Stereolithography
DLP projector
Photopolymer
Rapid prototyping
STL file

ABSTRACT

A cost-effective stereolithography for medium-scale components is developed to fabricate 3D components with high build speed and resolution from photo-curable resin. The developed SLA utilizes a focused light beam of wavelength range (300 nm – 700 nm) coming from the DLP projector, passes through the objective lens, and finally is imposed on the platform containing a photo-curable resin layer. After focusing the light beam on the liquid resin layer, the photo-polymerization reaction occurs, and the liquid resin becomes solid. Thus, the 3D object is fabricated layer by layer, curing of liquid resin. The photopolymer used in this experiment is polyethylene glycol di-acrylate, and Irgacure 784 as photo-initiator. The Creo 3.0 software is used for the modeling of 3D objects. A special MATLAB code is developed for slicing of the 3D model and displaying the sliced image one by one through the DLP projector. The Arduino microcontroller with a stepper motor and ball screw is used to control the motion of the Z-stage platform. The Creation workshop software is also used to control the motion of the Z-stage and period to display the sliced images through the DLP projector. The medium-scale 3D objects with rectangular, square, and circular cross-sections are obtained by curing the aforementioned photo-curable resin. It is observed that the 3D objects are best cured for two seconds curing time with 0.1 mm curing depth along Z-axis.

1. Introduction

The manufacturing industries today face the challenges of new product design, development, and the launching of products quickly. The market at the local, as well as the international level, is very fluctuating and highly unpredictable. These are due to changes in manufacturing methods and technology, changes in product requirements, changes in present products, and a small product development period. Therefore, for the successful launching of any product, the rapid time to market must be as minimum as possible (Krar and Gill, 2003). The technology known as rapid prototyping (RP) reduces product development costs and periods. This advanced technology allows complex three-dimensional (3D) models or components to be fabricated. Rapid prototypes of the different objects are also required before their actual manufacturing so one can improve their design early. One of the main advantages of RP is that it enhances the verification of product design. The RP part reduces the product cost over traditional methods in the product development cycle (Wohlers, 1999). The designers can check out their concepts and ideas by using RP parts before manufacturing tools for fixtures and moulds. The rapid prototyping field is very fast developing and applies to all products, i.e., engineering and nonengineering. The major disadvantage of the RP parts is that the functional tests carried out on RP parts should be within limits of the physical properties of the fabricated parts.

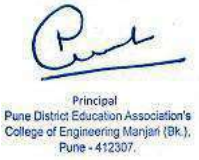
Abbreviations: 2D, Two dimensional; 3D, Three dimensional; CAD, Computer-aided design; DLP, Digital light processing; FDM, Fused deposition modeling; LCD, Liquid crystal display; MEMS, Micro-electro-mechanical systems; MSL, Micro stereolithography; RP, Rapid Prototyping; SLA, Stereolithography; STL, Standard tessellation language; UV, Ultra-violet.

* Corresponding author at: Department of Mechanical Engineering, Sinhgad College of Engineering, Vadgaon (Bk.), S. P. Pune University, Pune, Maharashtra 411041, India.
E-mail address: bksuryatal@gmail.com (B.K. Suryatal).

Peer review under responsibility of King Saud University.

ELSEVIER Production and hosting by Elsevier

https://doi.org/10.1016/j.jksues.2021.02.012



Progress in Additive Manufacturing (2023) 8:649–666
https://doi.org/10.1007/s40964-022-00354-y

FULL RESEARCH ARTICLE

Process parameter's characterization and optimization of DLP-based stereolithography system

Baban K. Suryatal[1,2] · **Sunil S. Sarawade**[3] · **Suhas P. Deshmukh**[4]

Received: 25 March 2022 / Accepted: 6 October 2022 / Published online: 26 October 2022

Abstract

The low-cost digital light processing (DLP) based stereolithography (SLA) system is developed to build 3D objects from the liquid photopolymer. The DLP projector is used as a UV light source and DMD chip already present in the projector is used as a dynamic pattern generator. The light beam from DLP projector passed through the focusing lens and then projected on a layer of liquid photopolymer which is settled on the platform. The liquid resin layer is solidified by photo-polymerization process and thus 3D objects are fabricated by layered manufacturing technique. The experimental results are validated by characterizing the process parameters. The process parameters are characterized using the method of least square which is the in-built function in the MATLAB software, and a separate code is developed for the same. A good correlation is observed between the experimental values and numerical results. The maximum dimensional error difference between the experimental and numerical methods is 9.94%. The MATLAB code is also written for the optimization of the process parameters using *fminunc* function and gradient descent algorithm. The best set of parameter values is found and it is observed that the optimized values are close to the experimental values. The maximum difference observed between the experimental and optimized values is 9.13%. The novelty of this work is that the medium-scale 3D components are successfully fabricated with good accuracy, build speed and resolution. The methodology developed for the characterization and optimization of process parameters can be applied to any newly designed SLA system.

Keywords Photopolymer · DLP projector · Stereolithography · Characterization · Optimization

Abbreviations

DLP	Digital light processing
SLA	Stereolithography
MSL	Microstereolithography
3D	Three-dimensional
PGDA	Polyethylene glycol di-acrylate
CAD	Computer aided design
LCD	Liquid crystal display
UV	Ultra violet
2D	Two-dimensional
RP	Rapid prototyping
AM	Additive manufacturing
DMD	Digital micro-mirror device
MEMS	Micro electro-mechanical systems
FEM	Finite element method
DSC	Differential scanning calorimetry
CLIP	Continuous liquid interface production
FDM	Fused deposition modeling
GDM	Gradient descent method
FEA	Finite element analysis
LT	Layer thickness
NoL	Number of layers
ET	Exposure time
SP	Settling period

✉ Baban K. Suryatal
bksuryatal@gmail.com

[1] Mechanical Engineering Department, Sinhgad College of Engineering, Vadgaon (Bk.), Savitribai Phule Pune University, Pune, Maharashtra 411041, India

[2] Mechanical Engineering Department, PDEA College of Engineering, Manjari (Bk.), Pune, Maharashtra 412307, India

[3] Mechanical Engineering Department, MES College of Engineering, Pune, Maharashtra 411001, India

[4] Mechanical Engineering Department, Government Engineering College, Karad, Maharashtra 415124, India

Computer Systems Science & Engineering
DOI: 10.32604/csse.2023.026254
Article

Tech Science Press

Criteria 3, 3.2.1

Multi-attribute Group Decision-making Based on Hesitant Bipolar-valued Fuzzy Information and Social Network

Dhanalakshmi R[1], Sovan Samanta[2], Arun Kumar Sivaraman[3], Jeong Gon Lee[4,*], Balasundaram A[5], Sanamdikar Sanjay Tanaji[6] and Priya Ravindran[7]

[1]Department of Computer Science and Engineering, KCG College of Technology, Chennai, 600097, Tamil Nadu, India
[2]Department of Mathematics, Tamralipta Mahavidyalaya, West Bengal, 721636, India
[3]School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, 600127, Tamil Nadu, India
[4]Division of Applied Mathematics, Wonkwang University, Iksan-Si, Jeonbuk, 54538, Korea
[5]School of Computer Science and Engineering, Center for Cyber Physical Systems, Vellore Institute of Technology, Chennai, 600127, Tamil Nadu, India
[6]Department of Instrumentation Engineering, PDEAs College of Engineering, Manjari, 412307, Pune, India
[7]Engineering and Research Services, HCL Technologies, Chennai, 600119, India
*Corresponding Author: Jeong Gon Lee. Email: jukolee@wku.ac.kr
Received: 20 December 2021; Accepted: 27 February 2022

Abstract: Fuzzy sets have undergone several expansions and generalisations in the literature, including Atanasov's intuitionistic fuzzy sets, type 2 fuzzy sets, and fuzzy multisets, to name a few. They can be regarded as fuzzy multisets from a formal standpoint; nevertheless, their interpretation differs from the two other approaches to fuzzy multisets that are currently available. Hesitating fuzzy sets (HFS) are very useful if consultants have hesitation in dealing with group decision-making problems between several possible memberships. However, these possible memberships can be not only crisp values in [0,1], but also interval values during a practical evaluation process. Hesitant bipolar valued fuzzy set (HBVFS) is a generalization of HFS. This paper aims to introduce a general framework of multi-attribute group decision-making using social network. We propose two types of decision-making processes: Type-1 decision-making process and Type-2 decision-making process. In the Type-1 decision-making process, the experts' original opinion is proces for the final ranking of alternatives. In Type-2 decision making processs, there are two major aspects we consider. First, consistency tests and checking of consensus models are given for detecting that the judgments are logically rational. Otherwise, the framework demands (partial) decision-makers to review their assessments. Second, the coherence and consensus of several HBVFSs are established for final ranking of alternatives. The proposed framework is clarified by an example of software packages selection of a university.

Keywords: Group decision-making; aggregation operators; hesitant bipolar-valued fuzzy set

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Criteria 3, 3.2.1

Implementation of Fake News Detection Using Machine learning

Prof S.V Shinde, Sunil Matkar, Mayur Gavade, Ganesh Karale , Jatin Tong

[1]Department of Computer Engineering,
[1]PDEAs College of Engineering, Pune-412307, India

Abstract: The rise of fake news has posed a significant challenge within these networks, impacting our society. Detecting and combating fake news is crucial to ensure the reliability of information spread on social media platforms. This research proposes the utilization of machine learning techniques, specifically Natural Language Processing (NLP) algorithms, to detect fake news. The approach involves data normalization as a pre-processing step to clean the data before applying machine learning methods for classification. The model also considers the credibility of content and user reputation as factors in assessing the authenticity of news. The goal is to automate the detection process by training a model on a credibility-focused dataset, enabling accurate assessments of fake news on social media.

Index Terms **-** fake news, machine learning, NLP, information exchange, credibility, user reputation, Machine Learning

INTRODUCATION This research paper focuses on the detection of the research proposes an automated approach to detect fake news on social media using machine learning and NLP algorithms. The model considers content credibility and user reputation as factors to assess the authenticity of news. By leveraging these techniques, the research aims to enhance accuracy in identifying fake news and create a more trustworthy social media environment.

THE PROBLEM OF FAKE NEWS The problem of fake news has become increasingly pervasive in recent years, posing significant challenges to individuals, communities, and society as a whole. Here are some key points regarding the problem of fake news. Fake news is a pervasive issue resulting from the widespread use of social media and the manipulation of information. It spreads quickly through social media platforms, influences public opinion and beliefs, contributes to polarization, erodes trust in legitimate news sources, and poses challenges to maintaining an informed society. Combating fake news requires a multi-faceted approach involving technology, fact-checking organizations, media literacy programs, and user education. Collaboration among various stakeholders is necessary to address the problem effectively.4. Challenges in detection: Detecting fake news is a complex task due to its diverse forms and the speed at which it can spread. Fake news can range from subtly misleading content to outright fabricated stories. Moreover, technological advancements make it easier for malicious actors to create convincing and shareable fake news. Traditional fact-checking methods alone are often insufficient to keep up with the volume and velocity of fake news production.

IMPORTANCE The importance of fake news detection lies in its significant impact on individuals, communities, and society as a whole. Here are some key reasons highlighting the importance of detecting and combating fake news:

1.Protecting the public: Fake news can mislead and deceive people, leading them to form false beliefs or make ill-informed decisions. By detecting and exposing fake news, we can protect the public from being manipulated and ensure they have access to accurate and reliable information.

2.Preserving trust in information sources: Fake news undermines trust in traditional media outlets and legitimate news sources. By detecting and addressing fake news, we can preserve trust in reliable sources of information, maintaining the credibility and integrity of journalism and news reporting.

3.Safeguarding democracy: Fake news has the potential to distort public discourse, manipulate elections, and undermine democratic processes. By detecting and countering fake news, we can help safeguard the democratic principles of informed decision-making, open dialogue, and a well-informed citizenry.

4.Mitigating social polarization: Fake news often contributes to the polarization of society by reinforcing existing biases and creating divisions. By detecting and debunking fake news, we can promote critical thinking, reduce misinformation-driven polarization, and foster constructive dialogue among diverse groups.

5.Promoting media literacy: Fake news detection encourages media literacy and critical thinking skills. By educating individuals on how to identify and evaluate fake news, we empower them to become discerning consumers of information and better equipped to navigate the complex media landscape.

6.Enhancing social cohesion: Fake news can fuel tensions and conflicts within communities. By detecting and addressing fake news, we can promote a more unified and cohesive society, based on shared understanding and accurate information.

7.Supporting responsible journalism: Fake news detection helps differentiate between professional journalism and misinformation. By highlighting the importance of responsible reporting and fact-checking, we encourage ethical journalism practices and elevate the standards of news dissemination.

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Digital Voice Assistant[A Literature Survey]

Criteria 3, 3.2.1

Prof. S.V.Shinde
Computer Departement
Pune District Education Association
COE Manjari Bk
Pune, India

M.M.Joshi
Computer Departement
Pune District Education Association
COE Manjari Bk
Pune, India

B.S.Kadam
Computer Departement
Pune District Education Association
COE Manjari Bk
Pune, India

K.D.Darekar
Computer Department
Pune District Education Association
COE Manjari
Pune,India

N.A.Tamboli.
Computer Department
Pune District Education Association
COE, Manjari
Pune,India

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Abstract*— Digital Assistance is computer program specially dedicated to assist user by responding to queries and performing basic tasks. It collects real time observations, which is use for better user experience and learn about the user's behavior. The digital assistant focuses at serving, the following most common and popular utilizations of digital assistant which are, question answering or information retrieval and implementing various local and/or remote services to perform tasks. Digital assistants make a use of advanced artificial intelligence (AI), natural language processing, natural language understanding, and machine learning to learn more about user and their environment in order to provide a personalized, chatty experience. The technologies require for digital voice assistant development are: Speech-To-Text (STT) And Text-To-Speech (TTS), Noise Control, Natural Language Processing (NLP), Natural Language Understanding (NLU), Natural Language Generation (NLG) and Deep learning. Digital assistant system uses microphone to capture the voice input of a user as a primary input. Users make use of a Microphone to capture the spoken input and a speaker to provide responses. The command block contains the main components to navigate the conversation of digital voice assistant with the user. ASR (Automatic speech recognition) is a method recognizer for speech, it forwards the recognition speculation to the NLU. A Natural Language Understanding (NLU) component can extract meaning as commands and associated entities from a pronouncement as text strings. Data providers obtain data using standard dataset from various sources for the better interaction.

Keywords: Artificial Intelligence, machine learning, deep learning, NLP, NLU, Noise control

I. INTRODUCTION

Digital assistant is computer program designed to assist a user by answering questions and performing basic tasks. To interact with a digital assistant, must use a wake word, which device uses to activate the digital assistant. Digital assistant uses advanced Artificial Intelligence, natural language processing and understanding and machine learning. AI to learn as they go and provide a prenasalised, conservational communication. Combining historical information such as purchase preferences, home ownership, location, family size, so on, algorithms can create data models that identify patterns of behaviour and then refine those patterns as data is added. Existing examples of digital assistant are Apple's Siri, Google assistant, Alexa etc. Digital assistant gathers real time insights, which business can use to continually improve the user's experience and learn about their customers and employees

II. LITERATURE REVIEW

Artificial Intelligence has been in great use when it comes to day-to-day life. Computer science defines AI research as the study of brilliant agents. In almost any direction one turns today, some form of computer-based information processing technology intrudes, whether to the individual knowingly or not. Artificial Intelligence (AI) has already changed our lifestyle. AI device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Input to recommendation algorithm can be a database of

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Digital Voice Assistant-Vision[implementation]

Criteria 3, 3.2.1

Prof. S.V.Shinde
Computer Departement
Pune District Education Association
COE Manjari Bk
BCU id :- 52201482373
Mail id:-sashsir@gmail.com
Pune, India

M.M.Joshi
Computer Departement
Pune District Education Association
COE Manjari Bk
Pune, India
ABC id:-206235116095
maithilijoshi1605@gmail.com

B.S.Kadam
Computer Departement
Pune District Education Association
COE Manjari Bk
Pune, India
ABC id:-520968815930
bhaktikadam151@gmail.com

K.D.Darekar
Computer Department
Pune District Education Association
COE Manjari
Pune,India
ABC id:-922708398968
darekarkalyani999@gmail.com

N.A.Tamboli.
Computer Department
Pune District Education Association
COE, Manjari
Pune,India
ABC id:-958112361268
tambolinikita12@gmail.com

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

***Abstract*- This paper shows the working of a device based on implementation of a voice command system as an intelligent personal assistant. The services provided by the device depends on the input given in the form of voice command by the user and ability to access information from a variety of online sources such as weather, telling time or accessing online applications to listen to music. This Voice driven device uses Raspberry Pi as its main hardware. Speech to text engine is used to convert the voice command to simple text. Query processing is then applied using natural language processing (NLP) onto this text to interpret the intended meaning of the command given by the user. After interpreting the intended meaning, text to speech conversion is used to give appropriate output in the form of speech. This device might provide a platform to visually impair to do their day to day tasks more easily like listening to music, checking weather conditions. ASR (Automatic speech recognition) is a method recognizer for speech it forward the recognition speculate to the NLU.**

Keywords: Virtual Personal Assistant, Natural Language Processing, Query Processing, Raspberry Pi, NLU.

I. INTRODUCTION

Digital assistant is computer program designed to assist a user by answering questions and performing basic tasks. To interact with a digital assistant, must use a wake word, which device uses to activate the digital assistant. Digital assistant uses advanced Artificial Intelligence, natural language processing and understanding and machine learning. AI to learn as they go and provide a prenasalised, conversational communication. Combining historical information such as purchase preferences, home ownership, location, family size, so on, algorithms can create data models that identify patterns of behaviour and then refine those patterns as data is added. Existing examples of digital assistant are Apple's Siri, Google assistant, Alexa etc. Digital assistant gathers real time insights, which business can use to continually improve the user's experience and learn about their customers and employees

II. SYSTEM REQUIREMENT

1. *Hardware Requirement :*

a. Microphone: The vocal commands given by the user which is used as input is given in through the microphone that is connected to the device. This vocal command is then later converted to simple text and keywords are searched through this text which helps the device to perform its functions and give out the expected results.

b. Raspberry Pi: Raspberry Pi is the major component of the device. It acts as a mini computer. It is indulged in all the activities since the beginning when the user gives the input till the end when the output is presented to the user. It sorts of binds all the components together. All the processing of the data takes place here.

c. Ethernet: The Ethernet cable helps us to provide the internet connection to the device. Internet plays a very important role in the operation of the device as it helps the device to do speech to text conversion, query processing through NLP and text to speech conversion. All these processes take place online that's why the internet connection is very essential.

d. Speaker: Speaker performs the last function in this process. The speaker helps the device to give out the

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 09 Issue: 11 | Nov 2022 www.irjet.net p-ISSN: 2395-0072

Survey on Techniques for Predictive Analysis of Student (l Career

Sagar More[1], Pravin Bhagwat[2], Indrajeet Karande[3], Sayaji Dhandge[4], Sachin Shinde[5]

[1]*Student, Department of Computer Engineering, PDEA's College of Engineering, Pune, Maharashtra, India*
[2]*Student, Department of Computer Engineering, PDEA's College of Engineering, Pune, Maharashtra, India*
[3]*Student, Department of Computer Engineering, PDEA's College of Engineering, Pune, Maharashtra, India*
[4]*Student, Department of Computer Engineering, PDEA's College of Engineering, Pune, Maharashtra, India*
[5]*Assistant Professor, Department of Computer Engineering, PDEA's College of Engineering, Pune, Maharashtra, India*

Abstract - *In recent years, predictive analytics has seen a surge in popularity, with many organizations using it to make decisions about everything from product development to marketing campaigns. The education sector is no exception, with many schools and universities using predictive analytics to identify at-risk students and improve retention rates. This survey paper reviews state of art in predictive analytics for student grades and career outcomes. The survey begins by discussing the different data types that can be used for predictive modeling, including demographic data, academic performance data, and social media data. Then this article reviews a few techniques used for predictive modeling in the education domain, including logistic regression, decision trees, and neural networks. Finally, this article discusses some of the challenges associated with predictive analytics in education and suggests future directions for research.*

Key Words: **student grade, career, machine learning, survey, svm, knn, j48, naïve bayes, linear regression, random forest, gradient boosting technique, xg boost, bayesian ridge regression**

1. INTRODUCTION

In recent years, predictive analytics has become an increasingly popular tool for educators, administrators, and policymakers to use to make data-driven decisions about students' grades and careers. Predictive analytics is data mining that uses statistical techniques to predict future events or outcomes. In education, predictive analytics has been used to forecast everything from student retention and success rates to job placement and earnings. Various techniques can be used for predictive analytics, and the choice of method depends on the type of data available and the specific question being asked. Some standard methods include regression analysis, decision trees, and artificial neural networks. This survey paper will review the literature on predictive analytics in education, focusing on techniques for predicting student grades and career outcomes. We will first provide an overview of the history and applications of predictive analytics in education. Next, we will discuss some of the most used methods for predictive analytics. Finally, we will discuss some challenges and limitations of predictive analytics in education.

2. LITERATURE SURVEY

[1] Siti Dianah Abdul Bujang, Ali Selamat, Roliana Ibrahim, Ondrej Krejcar, Enrique Herrera-viedma, Hamido Fujita, And Nor Azura Md. Ghani (2021): In this article, the authors propose a multiclass prediction model with six predictive models to predict final students' grades. The model is based on the previous students' final examination results of the first-semester course. The article does a comparative analysis of combining oversampling SMOTE with different FS methods to evaluate the performance accuracy of student grade prediction.

[2] Arati Yashwant Amrale, Namrata Deepak Pawshe, Nikita Balu Sartape, Prof. Komal S. Munde (2022): This article proposes a counseling system that uses artificial intelligence to help with career guidance.

[3] Vidyapriya.C, Vishhnuvardhan.R.C: In this article, the authors trained and tested three algorithms: logistic regression, Naive Bayes, and Support Vector Machine. They found that logistic regression had the highest accuracy compared to the other two algorithms.

[4] Prathamesh Gavhane, Dhanraj Shinde, Ashwini Lomte, Naveen Nattuva, Shital Mandhane (2021): In this article, authors have analyzed most machine learning algorithms for student career prediction. They found that combining new hybrid algorithms like SvmAda, RfcAda and SvmRfc showed excellent results.

[5] N. Vidyashreeram, Dr. A. Muthukumaravel: In this article, authors have used machine learning approaches such as Adaboost, SVN, RF, and DT to predict students' careers and have found that RF produces the best results in terms of accuracy.

[6] Zafar Iqbal, Junaid Qadir, Adnan Noor Mian, And Faisal Kamiran: In this article, authors have discussed the use

Criteria 3, 3.2.1

IJARSCT

ISSN (Online) 2581-9429

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.301

Volume 3, Issue 13, May 2023

Predictive Analysis of Student Grades and Career System

Sagar More[1], Pravin Bhagwat[2], Indrajeet Karande[3], Sayaji Dhandge[4], Sachin Shinde[5]

Students, Department of Computer Engineering[1,2,3,4]

Assistant Professor, Department of Computer Engineering[5]

PDEA's College of Engineering, Pune, Maharashtra, India

Abstract: *A data-driven strategy called Predictive Analysis of Student Grades and Career System aims to improve academic success for students and support wise career choices. This approach makes use of past academic performance data, as well as other important variables, to produce insights and forecasts about each student's performance and possible career trajectories. The technology delivers important insights into factors influencing student progress, detects at-risk individuals, and provides individualized support by utilizing cutting-edge algorithms and statistical models.*

Data gathering, preprocessing, feature selection, model development, and training are only a few of the system's crucial parts. It makes use of a variety of data sources, including academic transcripts, test scores, extracurricular involvement, and surveys of career interests. The system makes sure that the supplied data is relevant and of high quality to enable precise predictions through thorough feature engineering and data pretreatment.

Based on the unique properties of the dataset, the model-building process entails choosing the most suitable prediction models, such as decision trees, random forests, logistic regression, or neural networks. The internal parameters of these models are adjusted during the training process using past data to reduce prediction error and enhance performance. Using several test datasets, the model is evaluated and validated to determine its accuracy and generalizability.

The system's implementation makes it easy for users to access it, enabling students, teachers, and policymakers to enter pertinent student data and obtain career projections. The user interface makes forecasts, insights, and suggestions in an easy-to-understand format to help students make decisions about their futures in education and employment.

A viable approach to supporting students' academic journeys and helping with career planning is provided by the Predictive Analysis of Student Grades and Career System. Through the use of data-driven methodologies, the system equips stakeholders to take well-informed decisions, allocate resources efficiently, and create focused interventions that eventually enhance educational results and enable students to realize their full potential.

Keywords: naive bayes, linear regression, random forest, gradient boosting approach, xg boost, bayesian ridge regression, survey, svm, knn, j48, and student grade, career

I. INTRODUCTION

Predictive analytics has grown in popularity as a tool for educators, managers, and legislators to employ when making data-driven decisions about students' grades and careers in recent years. Data mining that use statistical methods to forecast upcoming events or results is known as predictive analytics. Predictive analytics have been employed in the field of education to estimate everything from student retention and success rates to job placement and pay. Predictive analytics uses a variety of methodologies, and the strategy selected relies on the type of data at hand and the particular query being posed. Regression analysis, decision trees, and artificial neural networks are a few examples of conventional techniques.The literature on predictive analytics in education will be reviewed in this survey article, with an emphasis on methods for forecasting student grades and career outcomes. We will start by giving a general review of the development

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue

JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Jou...

Plant Leaf Disease Detection Using Deep Learning

Hrithik.D. Dhyade[1] , Yash Meshram[2] , Swapnil Mergel[3] , Nirmal Neve[4]

"Computer Engineering Department , Savitribai Phule Pune University
PDEA's College of Engineering Manjri(Bk),Pune-412307(Maharashtra)India
dhyadehrithik@gmail.com
yashmeshram36@gmail.com
mergalswapnil@gmail.com
nirmalneve123rps@gmail.com

Criteria 3, 3.2.1

Abstract **- Pests damage plants and crops, which has an impact on the nation's agricultural output. Typically, farmers or professionals use their own eyes to monitor the plants to look for disease and identify it. However, this approach could be time-consuming, expensive, and unreliable. Results from automatic detection employing image processing methods are quick and precise. In this study, deep convolutional networks are used to develop a novel method of classifying leaf images in order to recognise plant diseases. The technique of precise plant protection has the potential to grow and improve, and computer vision advancements have the potential to boost the market for applications in precision agriculture. Innovative training methods and the methodology employed make it simple and quick to implement the system in real-world settings. The deep convolutional neural network used in this method paper has been trained and fine-tuned to fit accurately to a database of plant leaves that was gathered independently for various plant illnesses. The innovation and advancement of the proposed model lay in its simplicity; by utilising deep CNN, the model can discriminate between ill and healthy leaves as well as between them and the environment. Healthy leaves and backdrop images are also in line with other classes.**

Index Terms - deep convolutional neural networks, classification, training.

I. INTRODUCTION

Agriculture is one of India's key economic sectors. The Indian agricultural sector employs about 60% of the labour force of the nation. The largest producer of pulses, rice, wheat, spices, and spice-related items is believed to be India. The quality of the items that farmers produce, which is mostly dependent on the plant, determines how successful their businesses are. Plants are quite susceptible to illnesses that stunt their growth, which in turn has an impact on the farmer's environment. Use of automatic disease detection techniques is beneficial for spotting plant diseases at their earliest stages. In some sections of a plant, such as the leaves, the symptoms of plant diseases are obvious. It is laborious to manually diagnose plant illness using photographs of the leaves. Therefore, it is necessary to create computer techniques that would automate the disease identification and categorization procedure using leaf images.

Viral, fungal, and bacterial illnesses including Alternaria, Anthracnose, bacterial spot, canker, etc. are the principal diseases that affect plants. The bacterial disease is caused by the presence of germs in leaves or plants, the viral disease is caused by environmental changes, and the fungus disease is caused by the presence of fungus in the leaf. The process of segmentation is based on various aspects of an image, such as colour orientation, texture, borders, etc. Image segmentation is the process of dividing a picture into various parts. In this study, a Gradient Boosting Algorithm is used to segment leaves. When image processing is used for automatic illness identification, less work is required, costs are low, and on the plus side, it takes less time and is more accurate. In order to detect and identify plant diseases at an early stage and improve product quality, this study examines the significance of image processing techniques.

A. Motivation

The main motivation for producing this project is that, while every section of the world is developing, there is no such huge achievement or development in plant leaf diseases. So if we can prioritise this leaf field and detect infections, it will be useful to them.

B. Problem Statement

Veggies are very vulnerable to plant-impairing illnesses development that affects farmers' livelihoods ecology. Utilizing an automated illness detection system method is useful for finding plants early stages of illness Plant ailments appear themselves throughout the plant, including the leaves. The process of manually diagnosing takes a while utilising images of leaves to diagnose plant illness. The result is Development of computational algorithms is necessary to automate the disease identification procedure, and classifying with the aid of leaf photos.

II. RELATED WORKS

The ResNets algorithm was the focus of this paper. A component of the artificial neural network is a residual neural network (ResNet) (ANN). The vanishing/exploding gradient

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue

JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Fake News DetectionUsing Machine Learning Literature Review

Criteria 3, 3.2.1

Prof. S. V. Shinde, Sunil Matkar, Ganesh Karale , Jatin Tonge, Mayur (: of

Computer Engineering,

PDEA's College of Engineering Manjari, Pune, India.

Abstract— Most smart phone users choosesocial media over the internet to read the news. The news is published on news websites, which also serve as an official source. How can the news and articles that are shared on social media platforms like WhatsApp groups, Facebook Pages, Twitter,and other microblogs and social networkingsites be verified? To take rumors seriously and present them as news is detrimental to society. Stopping rumors is urgently needed, especially in emerging nations like India. Instead, people need to concentrate onaccurate, reliable news pieces. This essay presents a paradigm and a methodology for identifying fake news. It is attempted to aggregate the news with the use of machine learning and natural language processing, and then afterwards decide whether the news is true or fraudulent using SupportVector Machine. The proposed model'soutput is contrasted with those of earliermodels. The suggested approach is effective and can accurately define whether a result isright up to 93.6% of the time.

Keywords: Fuzzy Logic, Fuzzy Inference, Machine Learning, Naive Based Classifier, News, Prediction, Recommendation, Support Vector Machine are all terms used to describe artificial intelligence (SVM).

1. INTRODUCTION

In the modern world, anyone can publish content online. Unfortunately, fake news attractsa lot of attention online, especially through web-based networking platforms. People are misled and don't stop to think before sending such

inaccurate information to the arrangement's

farthest point. Such acts are bad for society since

they cause some rumors or hazy news to spread, which in turn makes people or a certain group of people think negatively[1]. To deal with suchactions, preventive measures must advance at thesame rate as technology. The general population is greatly impacted by broad communications, andas is customary, some persons try to take advantage of this. There are several websites thatprovide misleading information.

This has been a wonderful motivator for us to work on this project. Fake news detection is developed to stop the rumors that are being disseminated through the various platforms, whether it be social media or messaging platforms. This is done to stop disseminating fakenews which leads to activities like mob lynching.We frequently hear and read about mob lynchingsthat end in a person's death; fake news detection aims to identify these reports as false and put a stop to such actions, shielding society from these senseless acts of violence. [1] [3] [5]Sensor, the time for operation of railway gates isreduces which also includes the time for which the gates will remain closed. This ensures that the routinetraffic must be held for least amount of timeat the railway crossing. The paper intends to develop anautomatic railway gate control system which is reliable and secured than the existing manual systems.The paper is organized as follows. Chapter II gives information about the related workwhich is previouslycarried out. Chapter III deals with the system overviewand its requirements. Chapter IV describes the system architecture, blockdiagram, circuit diagram and the hardwarerequirements.

2022 IEEE 2nd International Conference on Mobile Networks and Wireless Communications (ICMNWC)

Stress & Emotion Recognition Using Sentiment Analysis With Brain Signal

1st Ashvini A Bamanikar
SKNCOE
Vadgaon bk', Pune
ashvini.bamanikar22@gmail.com

2nd Ritesh V Patil
PDEA'S College of Engineering
Manjari Bk Pune
rvpatil3475@yahoo.com

3rd Lalit V Patil
SKNCOE
Vadgaon bk' pune
lalitvpatil@gmail.com

2022 IEEE 2nd International Conference on Mobile Networks and Wireless Communications (ICMNWC) | 978-1-6654-9111-2/22/$31.00 ©2022 IEEE | DOI: 10.1109/ICMNWC56175.2022.10031835

***Abstract*—Stress, in common parlance, is the negative emotional state that arises when people feel overwhelmed by their responsibilities and cannot successfully do their daily tasks. There may be temporary benefits to stress. The negative effects of stress on health are well-documented, and they worsen with duration. Personality disorders, anxiety, and depression are all possible outcomes. The health issues stress creates can be mitigated if you have a firm grasp of how stress works in the body. One of the most reliable methods for determining human emotion and stress is through the analysis of brain signals. This signal-based or brain-wave-based technology can help diagnose a wide range of illnesses and impairments, much like EEG does. Emotion and mental strain can be detected using sentiment analysis. Therefore, a reliable, accurate, and precise system is essential. The purpose of this research is to create a more precise and reliable system for detecting stress in real time utilizing Electroencephalography (EEG) data. The human brain's electrical activity (EEG) can be used as a reliable, noninvasive stress gauge.**

Keywords—EEG Signal, Stress, Emotion, Sentiment analysis.

I. Introduction

This According to findings from the field of psychological science, the feelings of pressure and strain collectively make up the category known as stress. Even a moderate level of stress can sometimes even be helpful. An unhealthy amount of stress can increase the risk of cardiovascular disease, high blood pressure, stroke, heart attack, and other health complications. Furthermore, it has an impact on mental health issues such as anxiety, depression, and personality disorders. Stress can be assessed in a variety of ways, including mental, physiological, emotional, and physical activities [1]. The diagnosis of stress by EEG signal analysis combined with sentiment interpretation [2] is a useful medical diagnostic tool that is used in physiological monitoring. The human brain is the most important structure in the body and is made up of billions of neurons that are all connected to each other. The electroencephalogram (EEG) and sentiment analysis are two methods that are utilized in the computation of how these neurons relate brain activity to physiological processes. In order to successfully deploy brain-computer interaction systems [3, 4], it is necessary to have a higher level of specialized competence in the field of brain-computer interaction, as determined by an examination of past work. "sad," "fear," "happy," and "calm" are some of the categories that can be used to classify emotions for the purpose of determining levels of stress [5]. In addition, the perspectives of different other researchers have been investigated. Numerous research have looked at EEG signals by employing a wide variety of machine learning and deep learning approaches [6, 7]. The goal of these studies was to determine the characteristics that are used to classify emotions. EEG data are applied to ascertain the quantity of human stress by monitoring the activity of the cerebral cortex with the assistance of a variety of feature extraction [8] and classification algorithms. As a result of the many studies that have been conducted, we are aware that there are gaps in the study that need to be filled in order to eliminate some undesirable conditions.

Future applications of the BCI, such as illness analysis in medicine, human behavior in psychology, mental confusion in neuroscience, and humanism, will all be built on reliable recognition of sentiment and emotion [9].

II. Related Work

Due in large part to the investigations that were carried out by a large number of researchers from all over the world, a significant amount of research has been done on the subject of the classification of emotions based on the activity of the human brain [13]. Although these earlier studies offer helpful information on the factors that are most influential on human stress, the framework that is currently used to understand human stress can only accommodate a partial answer to each of the questions that they raise. This work draws attention to the remarkable contributions made by researchers working in the present time period to the field of EEG signal processing technologies [14], while also drawing attention to the techniques that are related to this field. In order to acquire brain impulses, process those impulses, and then transform those processed impulses into signals that can be recognized by other devices, a BCI is absolutely necessary. [15] The task-switching method is useful for determining whether or not a person is experiencing stress because of the negative effects it has on the activity of their brain. [16] In every country, there are people who struggle with stress. People all over the world deal with stress on a regular basis as a result of issues related to their jobs, including frustrations, disappointments, difficult working conditions, and other similar factors. [10]. Most of the causes of stress in the world can be traced back to some aspect of one's working life. Based on the relapsing model of assessment, Figure 1 depicts the evaluation and analysis of stress in each country, as well as how stress management improves the nation's economic standing. When viewed from the perspective of the mainland of India, a sizeable portion of the working population suffers from a variety of stress-related conditions. [11].

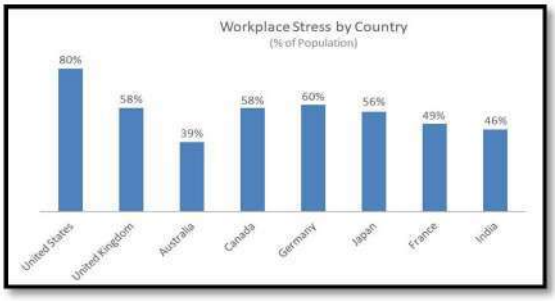


Fig. 1. Approach Selection Motivational Graph

978-1-6654-9111-2/22/$31.00 ©2022 IEEE

Early Phase Identification and Detection for Plant Poor Growth in Rural Areas: A Survey of the State of the Art

Prasad Chaudhari, Ritesh V. Patil, and Parikshit N. Mahalle

Abstract The food industry fuels the agricultural economies of Indian states. India has always been the largest manufacturing country, dominated by agriculture. Cereals, fruits, and vegetables such as potatoes, oranges, tomatoes, sugar cane, other cereals, and cotton are the most important crops in India. Maharashtra's impressive economic growth is partly based on its diverse citrus and cotton industries. This situation has created jobs for many people and great potential for economic growth in the state. The government focused on disease control, labor costs, and global markets to keep the citrus and cotton industries thriving. Recently, citrus canker, lime green, and black spotted cotton have seriously threatened citrus trees in Maharashtra. These diseases cause tree dieback and death, reduced yields, and loss of marketability. Likewise, farmers worry about the cost of tree loss, exploration, and chemicals used to control the disease. Automated detection systems can help prevent and reduce significant losses to industry, farmers, and the country's economy. This study aims to detect these diseases in crops using pattern recognition methods. The recognition method comprises three main subsystems: image acquisition, processing, and pattern recognition. The images are pre-processed to eliminate any unwanted noise, then the sheets' boundaries are identified, and finally, any relevant features are extracted. Different culture conditions were utilized using pattern recognition techniques to categorize the samples. To evaluate the classification method, we compared the results of different classification methods for detecting diseases in fruits, vegetables, and cereals, achieving an accuracy of 90–95%.

Keywords Plant diseases · Deep learning · CNN architectures

P. Chaudhari (✉) · R. V. Patil
SKNCOE Research Center, Pune, India
e-mail: prasad.chaudhari29@gmail.com

P. Chaudhari · P. N. Mahalle
Vishwakarma Institute of Information Technology, Pune, Maharashtra, India
e-mail: parikshit.mahalle@viit.ac.in

R. V. Patil
PDEA's College of Engineering, Pune, Maharashtra, India

J. Choudrie et al. (eds.), *IOT with Smart Systems*, Lecture Notes in Networks and Systems 720, https://doi.org/10.1007/978-981-99-3761-5_4

Criteria 3, 3.2.1

Smart Electricity Billing Management System Using Artificial Intelligent Based for the Implementation of Pre and Post Paid Tariffs

Dr. Deepali S Hirolikar
Assistant Professor,
Information Technology,
PDEA's College of Engineering
Manjari Bk Pune.
hirolikar.ds@gmail.com

Dr. Ezhilarasan G
Professor,
Department of EEE,
JAIN (Deemed-to-be University),
Bangalore, India.
g.ezhilarasan@jainuniversity.ac.in

Kuldeep Sharma
Department of CSE,
Lovely Professional University,
Phagwara, Jalandhar, Punjab, India.
ask.kuldeep@gmail.com

Badria Sulaiman Alfurhood
Department of Computer Sciences,
College of Computer and Information Sciences,
Princess Nourah bint Abdulrahman University,
Saudi Arabia.
bsalfurhood@pnu.edu.sa

Dr. Durgaprasad Gangodkar
Professor,
Department of CSE,
Graphic Era Deemed to be University,
Dehradun, Uttarakhand, India.
dr.gangodkar@geu.ac.in
000-0002-4397-4919

Dr. Ankush Kudale
Asso. Prof.,
Sinhgad Institute of Management,
Pune.
ankush.kudale@gmail.com

2023 International Conference on Artificial Intelligence and Smart Communication (AISC) | 979-8-3503-2230-9/23/$31.00 ©2023 IEEE | DOI: 10.1109/AISC56616.2023.10085534

***Abstract*— Electricity is an essential source of energy in human life. Every technology in modern life, from equipment to wrist watches, is powered by electricity. It is the most fundamental necessity, after food, shelter, and clothes. Many developments have occurred in power departments during the last decade, but they still use a manual billing system. A smart utility community management framework is presented in this research. Customers now need frameworks having automation and strong security since innovation has reached a certain stage. The paid-ahead-of-time meter is essential in assisting the customer in understanding their energy consumption, alleviating difficulties faced by the utility staff in reading the normal meter, and eradicating errors in bill issuance. These concerns relate to updating an existing regular energy meter that is connected to a security system and paid-in-advance framework. A Device 3B+, a traditional energy meter, a GSM device, a current measurement device, and a hand-off are all included in the stated paid-ahead meter. The two aspects of the proposed proposal are GSM innovation and overcurrent security. GSM technology is used for both transmission and storage functions.**

Keywords: - Artificial Intelligence, Billing Management System, GSM Technology, Prepaid & Postpaid Tariffs Smart Energy Meter.

I. INTRODUCTION

The smart grid uses advanced comm
including intelligent technologies to imp

and evaluate performance of the electrical energy network. Among the most significant and amazing growth factors is electricity. Nowadays, having power is a necessary component of being a man [1]. A tool used to determine how much electricity is utilized by a residential, commercial, or other electrically powered item is called an energy meter. The development of energy meter technology has advanced significantly since a few years ago. The vitality meter's accuracy and movement have substantially improved in recent years. There have been a number of innovations that have decreased the size and mass of the conventional powerful magnetic body and coil big electromechanical vitality meter in addition to advancements in usability and description. The way electrical factors are calculated has undergone a complete revolution with the development of sophisticated electronic energy meters throughout the last century. The accuracy, determination, voltage performance, smooth settling, and reading capabilities of a numerical energy meter are greater [2]. An analogue vitality meter's drawback is that since it only monitors control in one coordinate, it cannot be thoroughly studied.

Recently, a sensible gauge has been shown in the advertisement. A critical meter is often a microelectronic meter with a microcontroller inserted that can record energy usage in less than an hour and report it back to the reseller for
arging on a particular day. Businesses and
enefit enormously from clever meters in
y, competence, and comfort. Customers
eters may see the information the meter
to see how much electricity is being used.

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.2.2

Hybrid Algorithms based Software Development System using Artificial Intelligence for the Business Development

Dr. Deepali S Hirolikar
Information Technology
PDEA'SCollege of Engineering
Manjari Bk Pune
hirolikar.ds@gmail.com

Raman R.Tirpude
Department of Management
Maharashtra National Law University
Nagpur, India
ramantirpude100@gmail.com

Rithik.B
Electronics and communication
JSS Academy of Technical education
Bangalore
rithikbalaram77@gmail.com

Mr. Sony Varghese
Management
Xavier Institute of Management & Entrepreneurship
Kochi, India
sony@xime.org

Shalu Saraswat
Information Technology
PDEA'S College of Engineering Manjari
BK Pune
SPPU, Pune , Maharashtra
shalusaraswat82@gmail.com

Anu Jayalwal
Computer Science
Sushant university
India
anujayalwal@gmail.com

2023 3rd International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE) | 979-8-3503-9926-4/23/$31.00 ©2023 IEEE | DOI: 10.1109/ICACITE57410.2023.10182575

***Abstract*— In this essay, we look at how to provide a product to a consumer as quickly as possible without compromising its quality. We'll show how putting six continuous architectural principles into practise will help us ensure the quality of the finished project while shortening the manufacturing cycle. Prior to reducing costs, it's important to provide the things as fast as feasible. We can do this by using a variety of strategies, such availability plans, that enable us to maintain the greatest levels of quality, just as the software team was able to. He talks about these approaches, as well as a few more, for delivering top-notch printer software designs quickly. India has a big food-related industry. principal means of support. In this essay, I want to look at how to provide items to customers as quickly as possible without sacrificing product quality. Even while making enhancements, we will consider how the six comparable design components may ensure that the finished product has the highest possible quality in the shortest period of time possible. Giving excellent goods quickly and doing them effectively are both essential. To do this, we may use a range of strategies, such as unavailability techniques, which enable us to maintain the highest level of accuracy that our team of engineers is capable of. He discusses these methods and a few options for the goods' distribution. Using this stock market idea, growers can sell their goods at the highest bidder pricing. Farmers that fill out this form may register themselves and have access to a variety of facilities, such as market alerts, merchant engagement, assessments, and more. The creation of knowledge devices, automated weapon systems,[1] language comprehension, computer vision, legal analysis, and agricultural monitoring are just a few examples of the many uses for data modelling. The problem of the expanding global agricultural output will be addressed by the employment of AI in contemporary agriculture. Based on AI, it should be easy to recognise and quickly identify plants, and judgments on the appropriate chemical to apply and the necessary safe zone might be made quickly. The majority of residents in this area rely on agricultural products for the majority of their income, which is good for the whole neighbourhood. Farmers are in responsible of growing the food that is required for a healthy lifestyle. Choosing the right market value for the shares they are providing is a challenge for the sales reps. The costs of this corporation considerably outweigh its profits previously mentioned concept of share pri permitted to offer their goods at the highest b extra services available to farmers who joi assessments, supplier relationships, market u other advantages and features of a similar kind. Data analytics has several applications, including as a tool of knowledge.**

Keywords: AI, Business Development, Hybrid Algorithm, OOSE, Neural Network, CNN and XBLR.

I. INTRODUCTION

Prototypes are one of the life cycle pattern kinds for software development that are most often utilised. Many businesses that make software use the testing approach. The progressive model is often the order of steps utilised [2] when a customer submits a large-scale programme with the intention of completing it rapidly. The evolved life cycle approach is favoured over other life cycle methods because it enables us to continually develop the system given to the client while maintaining the basic minimums, or, to put it another way, the essential qualities of the product. For the application developers and the company, it is very problematic when the customer is unsure of his requirements and continuously altering them over time.

The life-cycle model is also employed well in modelling inside the software development business. Companies and organisations that create software often use prototyping. When a customer requests a speedy turnaround on a significant project, the up is often employed in connection with the life cycle idea. The transformational model [3] was chosen above other available models because it only includes the most basic elements, which we should really refer to as the item's essential components, and enables us to continue working on the building even after it has been delivered to the customer. When the consumer is unsure about their wants and often changes them, the programmers and the company face significant challenges. There will be a significant investment of resources, including time, energy, and labour. They should easily be able to introduce new items using OOSE since the new variables will absorb the key characteristics of the existing ones. Although the courses with either a solid item are restricted to carrying out their particular designated goal, apply such elements in the construction of Device agile development (Central Board of tion) is useful in this situation. It enables us mputer system using the stock components. ctive [4] is to build the system using pre- ents and integrating them rather than

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

A TEXT BOOK OF

SOFT COMPUTING

(Elective-VI)

FOR
SEMESTER – VIII

FINAL YEAR (B.E.) DEGREE COURSE IN COMPUTER ENGINEERING

Strictly According to New Credit System Syllabus of Savitribai Phule Pune University
(w.e.f. June 2022-2023)

Dr. DEEPALI UJALAMBKAR
Ph.D. (Computer Science and Engineering)
Assistant Professor,
Department of Computer Engineering,
AISSMS College of Engineering,
Kennedy Road, Pune.

Dr. MADHURI P. BORAWAKE
Ph.D. (Computer Engineering)
Assistant Professor and Head of Department,
Department of Computer Engineering,
PDEA's College of Engineering,
Manjari (Bk.), Pune.

NITIN N. SAKHARE
M. E. (Computer Networks)
Assistant Professor,
Department of Computer Engineering,
Vishwakarma Institute of Information Technology,
Kondhwa (Bk.), Pune.

Price ₹ 245.00

NIRALI PRAKASHAN
ADVANCEMENT OF KNOWLEDGE

N6761

SOFT COMPUTING (BE COMPUTER) ISBN : 978-93-95

First Edition : February 2023

Published By :
NIRALI PRAKASHAN
Abhyudaya Pragati, 1312 Shivaji Nagar
Off J.M. Road, PUNE 411005
Tel : (020) 25512336/37/39
Email : niralipune@pragationline.com

Polyplate

Pr
YOGIRAJ PRINTERS AND
Survey No. 10/1A, Ghule Indu
Nanded
Nanded, P

DISTRIBUTION CENTRES

PUNE

Nirali Prakashan
(For orders outside Pune)
S. No. 28/27, Dhayari Narhe Road, Near Asian College
Pune 411041, Maharashtra
Tel : (020) 24690204; Mobile : 9657703143
Email : bookorder@pragationline.com

Nirali Prakashan
(For orders within Pune)
119, Budhwar Peth, Jogeshwari Mandir Lane
Pune 411002, Maharashtra
Mobile : 9657703145, 9890997937
Email : niralilocal@pragationline.com

MUMBAI

Nirali Prakashan
Rasdhara Co-op. Hsg. Society Ltd., 'D' Wing Ground Floor, 385 S.V.P. Road
Girgaum, Mumbai 400004, Maharashtra
Mobile : 7045821020, Tel : (022) 2385 6339 / 2386 9976
Email : niralimumbai@pragationline.com

DISTRIBUTION BRANCHES

DELHI

Nirali Prakashan
Room No. 2 Ground Floor
4575/15 Omkar Tower, Agarwal Road
Darya Ganj, New Delhi 110002
Mobile : 9555778814/9818561840
Email : delhi@niralibooks.com

BENGALURU

Nirali Prakashan
Maitri Ground Floor, Jaya
Apartments, No. 99, 6th Cross, 6th
Main, Malleswaram, Bengaluru
560003 Karnataka; Mob : 9686821074
Email : bengaluru@niralibooks.com

NAGPUR

Nirali Prakashan
Above Maratha Mandir, Shop No
First Floor, Rani Jhanshi Square
Sitabuldi Nagpur 440012 (MAH
Tel : (0712) 254 7129
Email : nagpur@niralibooks.co

KOLHAPUR

Nirali Prakashan
438/2, Bhosale Plaza, Ground Floor,
Khasbag, Opp. Balgopal Talim,
Kolhapur 416 012 Maharashtra
Mob : 9850046155
Email : kolhapur@niralibooks.com

JALGAON

Nirali Prakashan
34, V. V. Golani Market, Navi Peth,
Jalgaon 425001, Maharashtra
Tel : (0257) 222 0395
Mob : 94234 91860
Email : jalgaon@niralibooks.com

SOLAPUR

Nirali Prakashan
R-158/2, Avanti Nagar, Near Gole
Gate, Pune Naka Chowk
Solapur 413001, Maharashtra
Mobile 9890918687
Email : solapur@niralibooks.co

A TEXT BOOK OF

AI FOR CYBER SECURITY

(Elective - II)

FOR

SEMESTER – VI

THIRD YEAR DEGREE COURSE IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Strictly According to New Credit System Syllabus of Savitribai Phule Pune University

(w.e.f. June 2021-2022)

Dr. MADHURI P. BORAWAKE
Ph. D. (Comp. Engg.)
HOD & Academic Coordinator,
Computer Engg. Dept.,
PDEA's College of Engineering,
Manjri (Bk.), Pune.

ASHVINI A. BAMANIKAR
M. Tech. (IT)
Assistant Professor,
Computer Engg. Dept.,
PDEA's College of Engineering,
Manjri (Bk.), Pune.

SWATI P. GADE
M. E. (Comp. Engg.)
Assistant Professor,
Computer Engg. Dept.,
PDEA's College of Engineering,
Manjri (Bk.), Pune.

Dr. SHUBHANGI JOSHI
Ph. D.
Assistant Professor,
E&TC Engg. Dept.,
MIT School of Engineering & Science,
Pune.

Price ₹ 175.00

NIRALI PRAKASHAN
ADVANCEMENT OF KNOWLEDGE

N6458

AI FOR CYBER SECURITY (TE, AI & ML)

First Edition : June 2023

ISBN : 978-81-19

Published By :
NIRALI PRAKASHAN
Abhyudaya Pragati, 1312 Shivaji Nagar
Off J.M. Road, PUNE 411005
Tel : (020) 25512336/37/39
Email : niralipune@pragationline.com

Polyplate

YOGIRAJ PRINTERS ANI
Survey No. 10/1A, Ghule In
Nand
Nanded,

DISTRIBUTION CENTRES

PUNE

Nirali Prakashan
(For orders outside Pune)
S. No. 28/27, Dhayari Narhe Road, Near Asian College
Pune 411041, Maharashtra
Tel : (020) 24690204; Mobile : 9657703143
Email : bookorder@pragationline.com

Nirali Prakashan
(For orders within Pune)
119, Budhwar Peth, Jogeshwari Mandir Lane
Pune 411002, Maharashtra
Mobile : 9657703145, 9890997937
Email : niralilocal@pragationline.com

MUMBAI

Nirali Prakashan
Rasdhara Co-op. Hsg. Society Ltd., 'D' Wing Ground Floor, 385 S.V.P. Road
Girgaum, Mumbai 400004, Maharashtra
Mobile : 7045821020, Tel : (022) 2385 6339 / 2386 9976
Email : niralimumbai@pragationline.com

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

DISTRIBUTION BRANCHES

DELHI

Nirali Prakashan
Room No. 2 Ground Floor
4575/15 Omkar Tower, Agarwal Road
Darya Ganj, New Delhi 110002
Mobile : 9555778814/9818561840
Email : delhi@niralibooks.com

BENGALURU

Nirali Prakashan
Maitri Ground Floor, Jaya
Apartments, No. 99, 6th Cross, 6th
Main, Malleswaram, Bengaluru
560003 Karnataka; Mob : 9686821074
Email : bengaluru@niralibooks.com

NAGPUR

Nirali Prakashar
Above Maratha Mandir, Sho
First Floor, Rani Jhanshi S
Sitabuldi Nagpur 440012
Tel : (0712) 254 712
Email : nagpur@niraliboo

KOLHAPUR

Nirali Prakashan
438/2, Bhosale Plaza, Ground Floor,
Khasbag, Opp. Balgopal Talim,
Kolhapur 416 012 Maharashtra
Mob : 9850046155
Email : kolhapur@niralibooks.com

JALGAON

Nirali Prakashan
34, V. V. Golani Market, Navi Peth,
Jalgaon 425001, Maharashtra
Tel : (0257) 222 0395
Mob : 94234 91860
Email : jalgaon@niralibooks.com

SOLAPUR

Nirali Prakasha
R-158/2, Avanti Nagar, Nea
Gate, Pune Naka Chc
Solapur 413001, Mahar
Mobile 989091868
Email : solapur@niralibo

marketing@pragationline.com | www.pragationline.com
Also find us on www.facebook.com/niralibooks

Lecture Notes on Data Engineering and Communications Technologies 131

G. Rajakumar

Chandrasekar Vuppalapati
Grigorios N. Beligiannis *Editors*

Intelligent Communication Technologies and Virtual Mobile Networks

Proceedings of ICICV 2022

Springer

Classification of ECG Signal for Cardiac Arrhythmia Detection Using GAN Method

S. T. Sanamdikar, N. M. Karajanagi, K. H. Kowdiki, and S. B. Kamble

Abstract Today, a big number of people suffer from various cardiac problems all over the world. As a result, knowing how the ECG signal works is critical for recognising a number of heart diseases. The electrocardiogram (ECG) is a test that determines the electrical strength of the heart. In an ECG signal, PQRST waves are a group of waves that make up a cardiac cycle. The amplitude and time intervals of PQRST waves are determined for the learning of ECG signals in the attribute removal of ECG signals. The amplitudes and time intervals of the PQRST segment can be used to determine the appropriate operation of the human heart. The majority of approaches and studies for analysing the ECG signal have been created in recent years. Wavelet transform, support vector machines, genetic algorithm, artificial neural networks, fuzzy logic methods and other principal component analysis are used in the majority of the systems. In this paper, the methodologies of support vector regression, kernel principal component analysis, general sparse neural network and generative adversarial network are compared. The GAN method outperforms both of the other methods. However, each of the tactics and strategies listed above has its own set of benefits and drawbacks. MATLAB software was used to create the proposed system. The proposed technique is demonstrated in this study with the use of the MIT-BIH arrhythmia record, which was used to manually annotate and establish validation.

Keywords Artificial neural networks · Support vector regression · Kernel principal component analysis · General sparse neural network · Generative adversarial network

S. T. Sanamdikar (✉)
Instrumentation Department, PDEA's College of Engineering, Manjari, Pune, India
e-mail: sanjay.coem@gmail.com

N. M. Karajanagi · K. H.
Instrumentation Departme esearch Awasari Khurd, Pune, India

S. B. Kamble
Electronics Department, I , India

G. Rajakumar et al. (eds.) *Virtual Mobile Networks*, Lecture Notes hnologies 131,
https://doi.org/10.1007/97

Lecture Notes in Networks and Systems 444

I. Jeena Jacob
Selvanayaki Kolandapalayam Shanmugam
Robert Bestak *Editors*

Expert Clouds and Applications

Proceedings of ICOECA 2022

Springer

Categorization of Cardiac Arrhythmia from ECG Waveform by Using Super Vector Regression Method

S. T. Sanamdikar, N. M. Karajanagi, K. H. Kowdiki, and S. B. Kamble

Abstract Various heart disorders affect a large number of people around the world today. As a result, understanding the properties of the ECG waveform is crucial to identify a variety of heart conditions. The ECG is an investigation that determines the strength of the electric impulses of heart. PQRST waves are a collection of waves that make up a cardiac cycle in an ECG waveform. The magnitude and temporal periods of PQRST impulses are estimated for the learning of ECG waveforms in the attribute removal of ECG waveforms. The values of the PQRST segment's amplitudes and time intervals can be utilized to determine the proper operation of the human heart. In recent years, the bulk of methodologies and studies for analysing the ECG waveform have been developed. In the bulk of the systems, fuzzy logic methods, artificial neural networks, genetic algorithm, support vector machines, the wavelet transform and other waveform examining techniques are used. SVM, ANN, neural mode decomposition and support vector regression approaches are compared in this work. The ISVR approach outperforms the other two methods. Each of the methods and strategies outlined above, however, have its own set of compensation and disadvantages. In this article, the wavelet transform Db4 is utilized to extract various properties from an ECG waveform. The proposed system is designed with MATLAB software. The verification of arrhythmia is presented in this study utilising the MIT-BIH dataset, which was used to validate should be manually annotated and produced.

Keywords Cardiac arrhythmia · QRS complex · Median filter · Electrocardiograph · Wavelet transform Db4

S. T. Sanamdikar (✉)
Instrumentation Department, PDEA's College of Engineering, Manjari, Pune, India
e-mail: sanjay.coem@gmail.com

N. M. Karajanagi · K. H.
Instrumentation Departme esearch, Awasari Khurd, Pune, India

S. B. Kamble
Electronics Department, I , India

I. J. Jacob et al. (eds.), *Ex* Networks and Systems 444, https://doi.o

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

PROJECTIONS
20 ★ 23
GUJARAT'S LARGEST TECHNICAL FESTIVAL

Parul® University

CERTIFICATE
OF MERIT

Is awarded to

TEAM JAGUAR

for securing 2nd position in the ROBO FOOTER

Event held under the banner of Projections - Annual Techincal Festival
During the Month of February, 2023

Dhruvil Shah
Dean, Student Welfare

Dr. Vipul Vekariya
Dean & Principal,
Faculty of Engineering and Technology

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

MASTERS GAMES ASSOCIATION
MAHARASHTRA

MASTERS GAMES ASSOCIATION

MAHARASHTRA (REGD.)

AFFILIATED TO MASTERS GAMES FEDERATION (INDIA)

Congratulations

3RD MAHARASHTRA STATE
MASTERS GAMES 2022
AURANGABAD

Certificate of Merit

This is to Certify that

Mr./Ms. SUHAS SALUNKHE

of PUNE District

Participated in 5000m. (MEN) and secured

Place SECOND Performance 23.19.17

Age Group 45+ in the 3rd MAHARASHTRA STATE MASTERS GAMES CHAMPIONSHIP

held on 16th December to 18 December 2022 at Aurangabad.

Organised by
MASTERS GAMES ASSOCIATION, MAHARASHTRA

Deepu K.
President

Mukesh Basha
Organising Secretary

Balu Chavan
General Secretary

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.3.2

MASTERS GAMES ASSOCIATION
MAHARASHTRA

MASTERS GAMES ASSOCIATION

MAHARASHTRA (REGD.)

AFFILIATED TO MASTERS GAMES FEDERATION (INDIA)

Congratulations

3RD MAHARASHTRA STATE
MASTERS GAMES 2022
AURANGABAD

Certificate of Merit

This is to Certify that

Mr./Ms. SUHAS SALUNKHE

of PUNE District

Participated in 1500 m. Run. (MEN) and secured

Place Second Performance 6.26 sec.

Age Group 45+ in the 3rd MAHARASHTRA STATE MASTERS GAMES CHAMPIONSHIP held on 16th December to 18 December 2022 at Aurangabad.

Organised by
MASTERS GAMES ASSOCIATION, MAHARASHTRA

Deepu K.
President

Mukesh Basha
Organising Secretary

Balu Chavan
General Secretary

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.3.2

MAHARASHTRA

MASTERS GAMES

MASTERS GAMES ASSOCIATION

MAHARASHTRA (REGD.)

AFFILIATED TO MASTERS GAMES FEDERATION (INDIA)

Congratulations

3RD MAHARASHTRA STATE

MASTERS GAMES 2022

AURANGABAD

Certificate of Merit

This is to Certify that

Mr./Ms. SUHAS SALUNKHE

of PUNE District

Participated in 800 m (Men) and secured

Place Second Performance 02.58.29

Age Group 45+ in the 3rd MAHARASHTRA STATE MASTERS GAMES CHAMPIONSHIP

held on 16th December to 18 December 2022 at Aurangabad.

Organised by

MASTERS GAMES ASSOCIATION, MAHARASHTRA

Deepu K.
President

Mukesh Basha
Organising Secretary

Balu Chavan
General Secretary

Principal
Pune District Education Association's
College of Engineering Manjari (Bk.),
Pune - 412307.

Savitribai Phule Pune University

And

Tikaram Jagannath Arts, Commerce & Science College
Khadki, Pune.

Jointly Organized

One Day Workshop

On

Effective Implementation of NEP 2020

Certificate

This is to certify that Mr./Mrs./Dr./Prof. Vaishali Shantaram Hiwarale
of PDEA'S College of Engineering Manjari, Bk has actively participated in
One Day Workshop on "Effective Implementation of NEP 2020" held on Friday, 24th February 2023.

Rajendra Lelle

Mr. Rajendrra Lelle
Coordinator, IQAC
Tikaram Jagannath College

Dr. Sanjay Chakane
Principal
Tikaram Jagannath College

Dr. Sanjay Dhole
Chairman, IQAC
Savitribai Phule Pune University

PDEA COLLEGE OF ENGINEERING
MANJARI BK. PUNE

National Service Scheme(NSS)

Criteria 3, 3.3.3

Activity 1

Activity Name:-Eye Checkup Activity

Organised By:-All NSS volunteers.

Date: 17 Aug 2022

Place:-PDEA's Collage Of Engineering Manjari BK Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 2

Activity Name:-Guest Lecture on Competitive Exams…

Guest Name:- 1) Dr.Sudhir Khedkar (Depoti Commisonar,Pune)

Date:-17 SEP 2022

Place:- Seminar Hall**,** PDEA,s College of engineering,Manjari Bk,Pune.

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.2

Activity 3

Activity Name:-Book Exihibition…

Organised By:-All NSS Core Team

Date:- 08 Oct 2022

Place:- PDEA,s College of engineering,Manjari Bk,Pune.

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 4

Activity Name:-Constitution Day celebration…

Organised By:-All NSS Core Team

Date:-26 Nov 2022

Place:- PDEA,s College of engineering,Manjari Bk,Pune.

Photo:-

Activity 5

Activity Name:-Plastic collection at Dive Ghat…

Organised By:-All NSS volunteers.

Date:-27 Nov 2022

Place:- Dive Ghat,Saswad.

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 6

Activity Name: - Blood Donation Camp

Organised By:-All NSS volunteers.

Date: 12 Dec 2022

Place: PDEA's Collage Of Engineering Manjari BK Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 7

Activity Name:- Dental checkup Activity

Organised By:-All NSS volunteers.

Date:-17 Dec 2022

Place: PDEA's Collage Of Engineering Manjari BK Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 8

Activity Name: - Mula River Cleaning…

Organised By:-All NSS volunteers.

Date: 2 Jan 2023

Place:- Mula River,Z Bridge,Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 9

Activity Name: - Blanket Providing to Needed People

Organised By:-All NSS volunteers.

Date: 16 Jan 2023

Place:-All Pune City

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 10

Activity Name: - National Voter Day Celebration

Organised By:-All NSS volunteers.

Date: 25 Jan 2023

Place: PDEA's Collage Of Engineering Manjari BK Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.3.3

Activity 11

Activity Name: - Fire less cooking Competition

Organised By:-All NSS volunteers.

Date: 1 Feb 2023

Place: PDEA's Collage Of Engineering Manjari BK Pune

Photo:-

Criteria 3, 3.3.3

Activity 12

Activity Name: - Art of living Eduyouth Program

Organised By:-All NSS volunteers.

Date: 4 Feb 2023

Place: Suryakant kakade farm kothrud, Pune

Photo:-

Criteria 3, 3.3.3

Criteria 3, 3.4.1

Pune District Education Associations

College Of Engineering, Manjari (Bk.),

Pune - 412 307

Pune District Education Association's College of Engineering
Training & Placement Officer
Pune - 412 307

COGNITIVE EXCHANGE COURSE

❖ **International Collaboration of PDEA' COEM.**

❖ **Objectives :**

1. The objective of CE is to help students to enhance key life skills like communication, organization, and leadership
2. Enable free and critical thinking in the minds of the future citizens through education in speech and debate.
3. Be the incubator and enabler to help students enhance key life skills like communication, critical thinking, civic awareness, and leadership beyond the academic curriculum.

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

PUNE DISTRICT EDUCATION ASSOCIATION'S
COLLEGE OF ENGINEERING
Manjari (BK), Pune - 412307 (Maharashtra) India

Cognitive Exchange Students List

Sr. No.	Name	Class	Branch	Division
1	Sayali Dighe	SE	Computer Engg.	A
2	Sneha Satpute	SE	Computer Engg.	B
3	Soniya Dound	SE	Computer Engg.	A
4	Sakshi Jadhav	SE	Computer Engg.	A
5	Ashwini Ugale	SE	Computer Engg.	B
6	Tejal Hinge	SE	Computer Engg.	A
7	Trupti Belote	SE	Computer Engg.	A
8	Shweta Jagtap	SE	Computer Engg.	A
9	Vrushali Kudande	SE	Computer Engg.	A
10	Monika Aher	SE	Computer Engg.	A
11	Sakshi Shelar	SE	Computer Engg.	B
12	Rutuja Kolte	SE	Computer Engg.	A
13	Vaishnavi Kutwal	SE	Computer Engg.	A
14	Ashutosh Kohinkar	SE	Computer Engg.	A
15	Akash Jadhav	SE	Computer Engg.	A
16	Eknath Borate	SE	Computer Engg.	A
17	Tanmay Gawali	SE	Computer Engg.	A
18	Sai Darawade	SE	Computer Engg.	A
19	Sanket Bharawade	SE	Computer Engg.	A
20	Sourabh Bagade	SE	Computer Engg.	A
21	Aniket Jawalgekar	SE	Computer Engg.	A
22	Om Galande	SE	Computer Engg.	B

Pune District Education Association's College of Engineering
Training & Placement Officer
Pune - 412 307

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

Week 1 Worksheet: Finding a Topic, and Creating an Intro

Directions: Students, please make a copy of this document by converting it into a google document or Word document. Please fill it out, and send it to your teacher. This worksheet should be finished by next week's class.

Student Name:
School:

Topic: Who is your most influential person?

Introduction Paragraph
Hook: Connection: Thesis Statement:

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

Pune District Education Association's College of Engineering
Training & Placement Officer
Pune - 412 307

WEEK 2: Creating the Body Paragraph (second one)

Directions: Students, please make a copy of this document by converting it into a google document or Word document. Please fill it out, and send it to your teacher. If your work cannot fit within the box, please feel free to write your speech on a separate paper
This worksheet should be finished by next week's class.
If you forgot what these words mean, please email your teacher

Student Name:

School:

Topic:

POINT OF ANALYSIS 1
Claim: Evidence: Analysis

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

WEEK 3: Creating the Body Paragraph (second one and third one)

Directions: Students, please make a copy of this document by converting it into a google document or Word document. Please fill it out, and send it to your teacher. If your work cannot fit within the box, please feel free to write your speech on a separate paper
This worksheet should be finished by next week's class.
If you forgot what these words mean, please email your teacher

Student Name:

School:

Topic:

POINT OF ANALYSIS 2
Claim: Evidence: Analysis

POINT OF ANALYSIS 3
Claim: Evidence: Analysis

WEEK 4: Creating the Conclusion Paragraph

Directions: Students, please make a copy of this document by converting it into a google document or Word document. Please fill it out, and send it to your teacher. If your work cannot fit within the box, please feel free to write your speech on a separate paper
This worksheet should be finished by next week's class.
If you forgot what these words mean, please email your teacher

Student Name:

School:

Topic:

Conclusion
Reframing the Thesis Statement Connection Back to Hook

Criteria 3, 3.4.1

Pune District Education Association's College of Engineering
Training & Placement Officer
Pune - 412 307

© Cognitive Exchange

Through his curiosity, Isaac Newton emphasized and encouraged learning and expanding knowledge. Newton once said "what we know is a drop, what we don't know is an ocean." Newton clearly emphasized and believed that there is so much more to learn and know about in the world and what we know is merely the surface level. Because so many people - children and adults alike - looked up to Newton's work, he has and will continue to encourage society to learn more about and explore the world, further helping better and develop our society.

Through his great and revolutionary discoveries, Isaac Newton taught the world to continue exploring and help influence a more developed society. Today, scientists are able to use the ideas and discoveries of Newton to better understand how our world works. For example, thanks to Newton's finding of the principle of gravity and his development of the universal law of gravitation, scientists are able to have a better understanding of gravity and how it works. Scientists can then use this understanding to develop new theories or discoveries and help society learn a bit more about how things work around us to find more efficient ways to do certain tasks. Without Newton's discoveries, we would not even be able to know surface level information about so many parts of our world and in turn, would not be able to progress and better society.

Overall, Newton has shown the importance of curiosity, encouraged the world to learn and expand our knowledge, and use this newfound knowledge to explore the world and develop a better society, hence making him the most influential person. As Newton has successfully influenced many people around the world, hopefully we can build enough bridges for all the walls we have built and started to build.

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Through his curiosity, Isaac Newton emphasized and encouraged learning and expanding knowledge. Newton once said "what we know is a drop, what we don't know is an ocean." Newton clearly emphasized and believed that there is so much more to learn and know about in the world and what we know is merely the surface level. Because so many people - children and adults alike - looked up to Newton's work, he has and will continue to encourage society to learn more about and explore the world, further helping better and develop our society.

Through his great and revolutionary discoveries, Isaac Newton taught the world to continue exploring and help influence a more developed society. Today, scientists are able to use the ideas and discoveries of Newton to better understand how our world works. For example, thanks to Newton's finding of the principle of gravity and his development of the universal law of gravitation, scientists are able to have a better understanding of gravity and how it works. Scientists can then use this understanding to develop new theories or discoveries and help society learn a bit more about how things work around us to find more efficient ways to do certain tasks. Without Newton's discoveries, we would not even be able to know surface level information about so many parts of our world and in turn, would not be able to progress and better society.

Overall, Newton has shown the importance of curiosity, encouraged the world to learn and expand our knowledge, and use this newfound knowledge to explore the world and develop a better society, hence making him the most influential person. As Newton has successfully influenced many people around the world, hopefully we can build enough bridges for all the walls we have built and started to build.

WEEK 3 ANALYSES REFERENCE SHEET

Writing an analysis can be tough, so here are some ways to do it!

Method	Explanation
Generalization	If something is true for a small group, it might also be true for a bigger group
Sign/Clue	One piece of evidence signals a specific condition or idea
Causality	One event or state can cause another-- basically a cause and effect relationship
Authority	Think about whether the author is reliable and if they are a professional. This can also be used as an analysis.
Principle	Build on both your moral values and the moral values of the audience
Analogy	Compare one situation, idea, or event to another

PDEA'S COLLEGE OF ENGINEERING, MANJARI, PUNE

Criteria 3, 3.4.1

COGNITIVE EXCHANGE

1

Training Of Cognitive Exchange Batch Mentors

पुणे जिल्हा शिक्षण मंडळ, पुणे
(Pune District Education Association)

Certificate

The certificate of Active Participation is being conferred to

Mr. / Mrs. / Miss. Prof. Jadhav Anuradha A.

of College Of Engineering, Manjari. for the training of

Cognitive Exchange / Lead to Excel Program held on 26th August 2022

at PDEA Head Office.

Date : 26/08/ 2022

Adv. Sandeep Kadam

2

Recognition of CE Mentorship

COGNITIVE EXCHANGE

3

Visit of Mr. Amit Deokule; Director CE Expansion India to PDEA's COEM, Pune

4

Visit Record

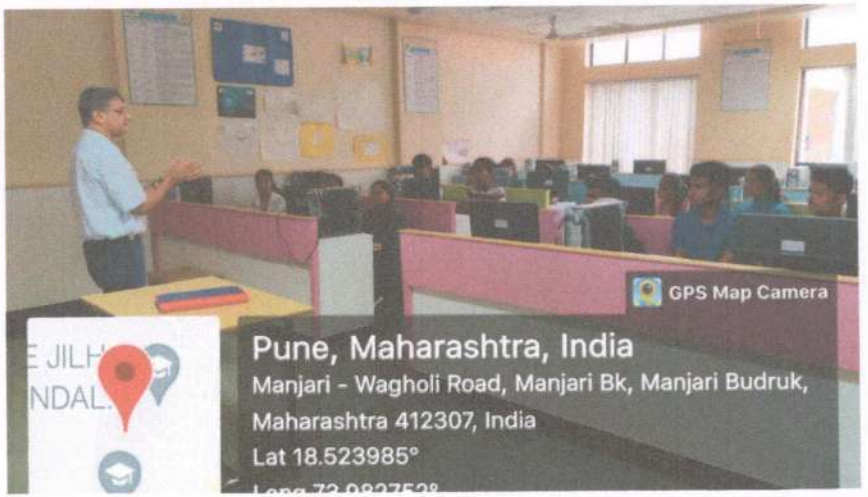
Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

PDEA'S COLLEGE OF ENGINEERING, MANJARI, PUNE

COGNITIVE EXCHANGE

5

Introducing Deokule Sir to College of Engineering, Manjari ; Cognitive Exchange Batch



6

Icebreaking Session Of Mr. Deokule Sir on COEM Cognitive Exchange students Batch

7

Interactive Activity of Self Introduction & Self Confidence conducted in session

8

Cognitive Exchange Batch students attending Introductory Session

COGNITIVE EXCHANGE

PDEA

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.)
Pune-412307.

PDEA'S COLLEGE OF ENGINEERING, MANJARI, PUNE

COGNITIVE EXCHANGE

9

Well Equipped, separate Computer LAB; where CE Batch is Conducted

10

CE Batch Conduction every Saturday Morning From 17/09/2022 to 24/12/2022

COGNITIVE EXCHANGE

11

Batch session Conduction

12

Batch Session Conduction - US Mentors

PDEA

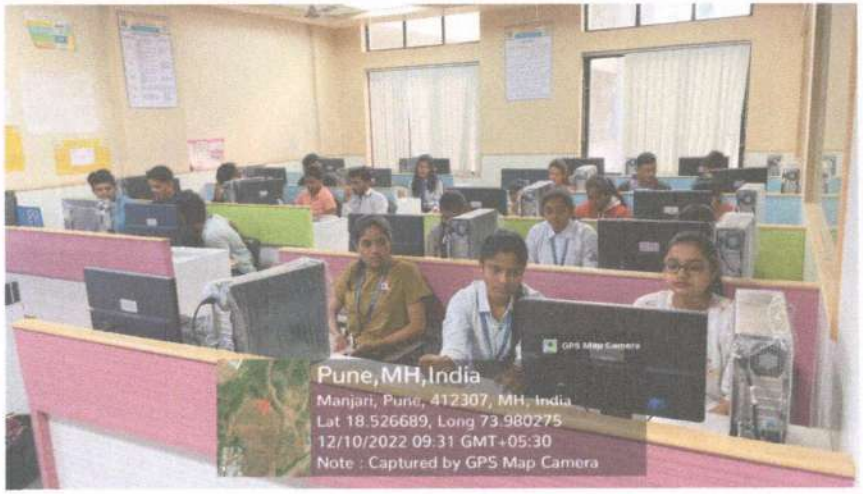
Principal
Pune District Education Association
College of Engineering, Manjari (Bk.)
Pune-412 307.

Criteria 3, 3.4.1

COGNITIVE EXCHANGE

13

Assessment Of CE Batch students With US Mentors



14

Final Assessment on Basic Speech

15

Student Interaction With US Mentors

16

Final Assessment on Basic Speech

COGNITIVE EXCHANGE

Principal
Pune District Education Association
College of Engineering, Manjari (Bk.)
Pune 412307.

PDEA'S COLLEGE OF ENGINEERING, MANJARI, PUNE

Criteria 3, 3.4.1

COGNITIVE EXCHANGE

17

Winners Of Final Assessment -
1st Rank - Sakshi Jadhav.
2nd Rank - Aniket Jawalgekar.
3rd Rank - Vrushali Kudande.

Task - Preparation and Delivery of Speech on Favourite / Inspiring Quote

18

Total Batch of 22 Students Have Successfully Completed First Stage of Assessment on Basic Speech

COGNITIVE EXCHANGE

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Certificate of Completion

This certificate is awarded to

Monika Aher

for successfully completing the
CognitivExchange Basic Speech Program

December 16, 2022

Folsom CA, USA

Jyoti Das

Jyoti Das
Chairman of Board

PDEA
Pune District Education Association

COGNITIVE EXCHANGE

Pune District Education Association's College of Engineering
Training & Placement Center
Pune - 412

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.)
Pune - 412307

Certificate of Completion

Criteria 3, 3.4.1

This certificate is awarded to

Vrushali Kudande

for successfully completing the
CognitivExchange Basic Speech Program

December 16, 2022

Folsom CA, USA

Jyoti Das

Jyoti Das
Chairman of Board

Training & Placement Officer

PDEA
Pune District Education Association

COGNITIVE EXCHANGE

Principal
Pune District Education Association's
College of Engineering, Manjri (BK)
Pune - 412307

KDN Infotech Pvt. Ltd. & V and K Softtech Solution Pvt. Ltd.

Under MOU Organised

The Key of Victory

Job Oriented course
"Industrial & Embedded C programming language."
With one individual project.

*Objectives :-

-Provide training & job oriented placement programs.

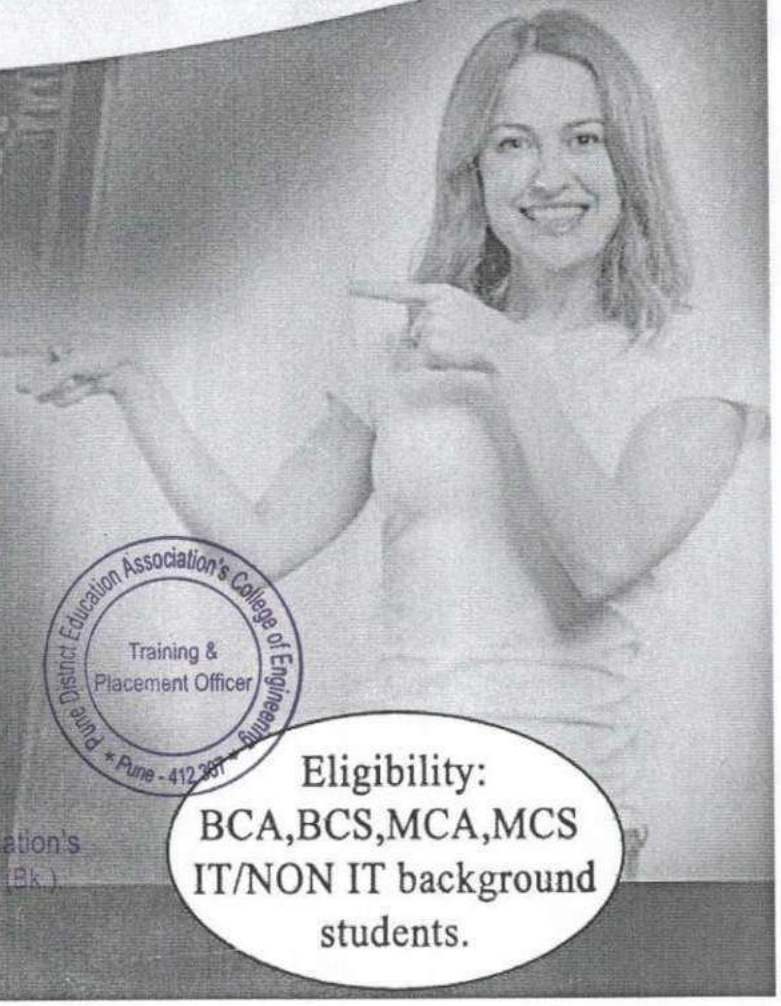
-IT career guidance to help candidate to select career path.

-IT Industry Awareness.

-Course guidance for Non-IT candidates,to select the proper course and enter IT field to build their career.

-Guidance on Aptitude Test.

-Free Internship for Post Graduate shortlisted students.



Note:- Candidate who will crack the Apptitude after C programming course will get FREE placement calls.

Pune District Education Association's College of Engineering * Pune - 412 307 * Training & Placement Officer

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.)
Pune - 412307

Eligibility:
BCA,BCS,MCA,MCS
IT/NON IT background students.

Course Syllabus.

KDN
INFOTECH PVT LTD
DEDICATED TO EXCELLENCE

C course content

- Basics content of C Language

- What is C language
- History of C Language
- Features of C Language
- How to Install C
- The Structure of a C Program
- How to Write C Programs?
- Compilation process in C
- Printf() and scanf() in C

- C language Overview

- Veriables in C and Its Types
- Data Types in C
- C laguage Keywods
- Identifiers in C and their type
- Role of operater in C language
- Comments in C and their Types
- Format Specifier in C language
- Esacape sequence
- (ASCII) American Standard Code for information interchange values in C
- Role of a constraints in C
- The Types of Literals that exist in C programs
- Importance of Tokens in C
- Boolean Data Type in C
- Static keyword in C
- Role of programming errors in C and their types
- Role of compile time and run time error in C
- Conditional operater in C language

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

- Bitwise operater in C and their types

- Control Statements Which Used C Language:
  - The IF.....ELSE Statement in C and variants of if statement in C language
  - IF.....ELSE ladder (C switch statement)
  - The difference between If ...else and switch statement
  - Loops in C programming and their three types
  - Do while loop in C
  - While loop in C (pre-tested loop)
  - For loop in C Language
  - Nested loop in C language
  - Infinite loop in C language
  - Role of C break statement
  - C continue statement
  - goto statement in c
  - type casting in c

- Function in C
  - Advantages of C Function and their Types
  - Call by value method in C and call by reference method in C
  - Recursion process in C
  - Storage classes in C and their Four types

- Array in C
  - Array: what and why?
  - 1D arrays
  - 2Darrays
  - Mulri Dimentional array
  - Dynamic arrays

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

- Pointers in C

  - Pointers in C and declaring a pointer
  - Double pointer in C
  - Dangling pointer in C
  - Sizeof() operater in c
  - Constraint pointer in c and their syntax
  - Void pointer in c
  - Dereference pointer (indirection operator) in C and why we use

- Dynamic memory in C

  - The concept of dynamic memory allocation in c language and their 4 types of functions

- String Handling in C

  - gets() puts() function in C
  - Role of string function
  - String Length: strlen function in C language
  - The strcpy function
  - String concatenation: strcat()
  - Compare string function in c .....strcmp()
  - The reverse string function.....strrev()
  - String lowercase function ....strlwr()
  - String uppercase function...strupr()
  - String strstr()
  - Match function in C

The Structures and union in C

- Advantages of a structure in c
- Defining structure .....typedef keyword in C
- Uses of an array structures in c
- Nested structure in C
- Structure padding in c
- Defining union datatype in c

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

- File Management in C

  - Introduction of file management and need of file handling in C
  - Fprintf() and fscanf() function
  - Writing file fputs() function and reading file fgets() function
  - fseek() function in c
  - rewind() function in c
  - ftell() dunction in c

Dynamic Memory allocation

- ✓ Introduction to Dynamic Memory Allocation
- ✓ Malloc
- ✓ Calloc
- ✓ Realloc
- ✓ Free

Principal
Pune District Education Association's
College of Engineering, Manjari (Bk.),
Pune - 412307.

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1

Criteria 3, 3.4.1