



Jayawant Shikshan Prasarak Mandal's  
**JSPM Narhe Technical Campus**

S. No. 12/2/2 and 14/9, Narhe, Tal : Haveli, Dist.: Pune – 411041  
Phone : +91 20 2460 8700, 701, 702 Email : director@jspmntc.edu.in Web : www.jspmntc.edu.in  
Affiliated to Savitribai Phule Pune University. Approved by AICTE New Delhi and DTE Maharashtra.  
DTE Code : 6755 PUN Code : CEGP019070 AISHE Code : C-45874



**Prof.(Dr.)T. J.Sawant**  
D.E.E., B.E.(Electrical),Ph.D., MISTE  
Founder - Secretary

**Prof.(Dr.)M.M.Sardeshmukh**  
B.Tech (E&TC) M.Tech (E&TC),Ph.D.(Engg.)  
DIRECTOR

### 6.3: Faculty Empowerment Strategies

6.3.2.1: Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years.

#### HEI Input:

2022-23	2021-22	2020-21	2019-20	2018-19
27	33	12	49	39

#### DVV Suggested Input:

2022-23	2021-22	2020-21	2019-20	2018-19
06	16	01	08	32

**DVV Suggested Input is Accepted.**

#### DVV Suggested Supporting documents:

- Documents of Financial Support Certified by the Principal

**Director**  
**JSPM Narhe Technical Campus**  
**Narhe, Pune - 411041**





**Jayawant Shikshan Prasarak Mandal's  
JSPM Narhe Technical Campus**

S. No. 12/2/2 and 14/9, Narhe, Tal : Haveli, Dist.: Pune – 411041  
Phone : +91 20 2460 8700, 701, 702 Email : director@jspmntc.edu.in Web : www.jspmntc.edu.in  
Affiliated to Savitribai Phule Pune University. Approved by AICTE New Delhi and DTE Maharashtra.  
DTE Code : 6755 PUN Code : CEGP019070 AISHE Code : C-45874

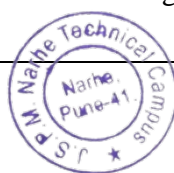


**Prof.(Dr.)T. J.Sawant**  
D.E.E., B.E.(Electrical),Ph.D., MISTE  
Founder - Secretary

**Prof.(Dr.)M.M.Sardeshmukh**  
B.Tech (E&TC) M.Tech (E&TC),Ph.D.(Engg.)  
DIRECTOR

**INDEX**

S.No	Year	Name of Teacher	Name of Conference/ Workshop attended for which Financial Support provided	Name of the Professional Body for which Membership fee is provided	Digital Pg.No.
1.	2022-23	Dr.S.B.Khaple	FDP On Research Methodology	NA	7
2.	2022-23	Ms. P.R.Balage	FDP On Machine Learning with PYTHON	NA	10
3.	2022-23	Dr M P Hajare	Conference A Review On Opportunistic Routing Systems For Internet Of Underwater Things	NA	13
4.	2022-23	Mrs. S P Kurlekar	International Conference On 6G And Wireless Technology	NA	16
5.	2022-23	Dr.A.B.Ikhe	International Conference On Recent Development In Engineering, Science, Humanities And Management(ESHM-2023) By Govt.Engineering College Bharatpur Rajasthan	NA	19
6.	2022-23	Dr.M.A.Kumbhalkar	Conference On Design And Optimization Of The Bracket Connected With ACTUATOR And VALVE	NA	22
7.	2021-22	Mr. A. S. Patil	Orientation/Refresher Program On Recent Advanced Material Science & Engineering	NA	25
8.	2021-22	Mr.P. B.Jarande	Faculty Development Program On 'Amazon Web Services'	NA	28
9.	2021-22	Mr.Bhushan Manmode	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	31
10.	2021-22	Dr.M.A.Kumbhalkar	One Week STTP on Experimental Methods in Engineering	NA	34





Jayawant Shikshan Prasarak Mandal's  
**JSPM Narhe Technical Campus**

S. No. 12/2 and 14/9, Narhe, Tal : Haveli, Dist.: Pune – 411041

Phone : +91 20 2460 8700, 701, 702 Email : director@jspmntc.edu.in Web : www.jspmntc.edu.in

Affiliated to Savitribai Phule Pune University. Approved by AICTE New Delhi and DTE Maharashtra.

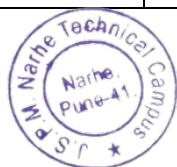
DTE Code : 6755 PUN Code : CEGP019070 AISHE Code : C-45874



**Prof.(Dr.)T. J.Sawant**  
D.E.E., B.E.(Electrical),Ph.D., MISTE  
Founder - Secretary

**Prof.(Dr.)M.M.Sardeshmukh**  
B.Tech (E&TC) M.Tech (E&TC),Ph.D.(Engg.)  
DIRECTOR

11.	2021-22	Mr.A.A.Kamble	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	37
12.	2021-22	Mr.S.B.Hankar e	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	40
13.	2021-22	MR.S.M.Patil	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	43
14.	2021-22	Mr.J.M.Jadhav	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	46
15.	2021-22	Mr.P.B.Maitre ya	One Week STTP on Experimental Methods in Engineering	NA	49
16.	2021-22	Mr.B.B Aher	One Week STTP on Experimental Methods in Engineering	NA	52
17.	2021-22	Mr.Ganesh Bhosle	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	55
18.	2021-22	Mr.Atul Patil	One Week STTP on Experimental Methods in Engineering	NA	58
19.	2021-22	Mr.G.V.Raiph ale	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	61
20.	2021-22	Mr.P.U.Gaikwad	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	64
21.	2021-22	Ms.M.S.Deokar	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	67
22.	2021-22	Mr.V.J.Raje	One Week Short Term Training Program on Conservation of Energy, Water and Environment –	NA	70





Jayawant Shikshan Prasarak Mandal's  
**JSPM Narhe Technical Campus**

S. No. 12/2/2 and 14/9, Narhe, Tal : Haveli, Dist.: Pune – 411041

Phone : +91 20 2460 8700, 701, 702 Email : director@jspmntc.edu.in Web : www.jspmntc.edu.in

Affiliated to Savitribai Phule Pune University. Approved by AICTE New Delhi and DTE Maharashtra.

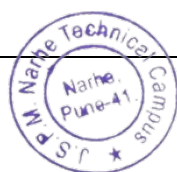
DTE Code : 6755 PUN Code : CEGP019070 AISHE Code : C-45874



**Prof.(Dr.)T. J.Sawant**  
D.E.E., B.E.(Electrical),Ph.D., MISTE  
Founder - Secretary

**Prof.(Dr.)M.M.Sardeshmukh**  
B.Tech (E&TC) M.Tech (E&TC),Ph.D.(Engg.)  
DIRECTOR

23.	2020-21	Dr.M.A.Kumbhalkar	International Conference On Advances InMechanical Engineering And Nanotechnology (ICAMEN 2021) A	NA	73
24.	2019-20	Mr. D. D. Mohite	Conference On Anarobic BiologicalTreatment Of Distillary West Water	IOP	76
25.	2019-20	Mr.V.V.Muthekar	Conference On Application On Light Interference Technique For Locating Ground Water Weins	IOP	79
26.	2019-20	Mr.S.S.Bansode	Conference On Experimental Analysis OfGrey Water Treatment In RURAL Areas Using Nano Metaloxide	The Insitute of Engineers	82
27.	2019-20	Dr.S.B.Khaple	NA	The Insitute of Engineers	85
28.	2019-20	Dr,R,K.Lad	Conference Paper On Payment PerformanceIndex For Rating Flexible Payments	NA	88
29.	2019-20	Dr.S.S.Solanki	5th International Conference On InnovationIn IT And Management	NA	91
30.	2019-20	Mr K.S.Rambhad	International Conference On Advanced InMechanical And Electrical Engineering ICAMEE-19	NA	94
31.	2019-20	Dr.M.A.Kumbhalkar	International Conference On Smart Technologies For Energy, Environment andSustainable Development (ICSTEEST-20) Performance Investigation Of Desiccant Wheels For Air Dehumidification	NA	97
32.	2018-19	DR. S.B. Khpale	NA	ISTE	100
33.	2018-19	Dr.R.K.Lad	NA	ISTE	103
34.	2018-19	Ms.Namrata Jajoo	NA	ISTE	105
35.	2018-19	Mr.M.D.Anap	NA	ISTE	107
36.	2018-19	Dr.S.A.Choudhari	NA	ISTE	110
37.	2018-19	Dr.R. H Kulkarni	NA	ISTE	112





Jayawant Shikshan Prasarak Mandal's  
**JSPM Narhe Technical Campus**

S. No. 12/2/2 and 14/9, Narhe, Tal : Haveli, Dist.: Pune – 411041

Phone : +91 20 2460 8700, 701, 702 Email : director@jspmntc.edu.in Web : www.jspmntc.edu.in

Affiliated to Savitribai Phule Pune University. Approved by AICTE New Delhi and DTE Maharashtra.

DTE Code : 6755 PUN Code : CEGP019070 AISHE Code : C-45874



**Prof.(Dr.)T. J.Sawant**  
D.E.E., B.E.(Electrical),Ph.D., MISTE  
Founder - Secretary

**Prof.(Dr.)M.M.Sardeshmukh**  
B.Tech (E&TC) M.Tech (E&TC),Ph.D.(Engg.)  
DIRECTOR

38.	2018-19	Mr.Vilas Gaikwad	NA	ISTE	114
39.	2018-19	Ms. J.S. Kharat	NA	ISTE	116
40.	2018-19	Ms.D. D.Pradhan	PHOTONICS-2018,IIT Delhi	NA	119
41.	2018-19	Ms.N.R.Kadam	NA	ISTE	122
42.	2018-19	Ms K.P.Wagh	NA	ISTE	125
43.	2018-19	Ms. V.S.Patil	NA	ISTE	128
44.	2018-19	Mr.S. S. Ambare	NA	ISTE	131
45.	2018-19	Mr.N. M. Gaikwad	NA	ISTE	134
46.	2018-19	Dr.S. D. Kore	NA	ISTE	137
47.	2018-19	Mr.M.A.Kumbhalkar	International Conference And Expo On Emerging Trends In Mechanical Engineering (e-TIME 2019) Dynamic Analysis And Experimental Investigation For Vibration ResponseOf SuspensionSystem Of Indian Railway Vehicle	NA	140
NA			ISTE	143	
48.	2018-19	Mr.P B Maitrey	NA	ISTE	146
49.	2018-19	Mr.S..B Pawar	FDP On Design Of Solar PhotovoltaicSystem		149
50.	2018-19	Mr.S P Kadu	NA	ISTE	152
51.	2018-19	Dr. J. S. Gawande	NA	ISTE	155
52.	2018-19	Dr. S. B. Satpal	FDP On Design Of Solar PhotovoltaicSystem	NA	158
53.	2018-19	Mr. G. S. Dhumal	NA	ISTE	161
54.	2018-19	Mr. S. S. Kale	NA	ISTE	164
55.	2018-19	Mr. P. A. Dhaware	NA	ISTE	167



56	2018-19	Mrs. M. S. Deokar	NA	ISTE	170
57	2018-19	Mr. G. S. Sawdadkar	NA	ISTE	173
58	2018-19	Mr.K.S.Rambhad	FDP On Design Of Solar Photovoltaic System	NA	176
59	2018-19	Mrs. P. M. Hombal	NA	ISTE	179
60	2018-19	Mrs. A. D. Halwe	FDP On Design Of Solar Photovoltaic System	NA	182
61	2018-19	Dr. J. S. Gawande (Asso. Membership)	NA	IEI (Partial Funds)	185
62	2018-19	Mrs. R. A. Yadav (Asso. Membership)	NA	IEI (Partial Funds)	188
63	2018-19	Mr. B. B. Aher (Asso. Membership)	NA	IEI (Partial Funds)	191



*[Handwritten Signature]*

**Director**  
**JSPM Narhe Technical Campus**  
**Narhe, Pune - 411041**

One Week National Level Faculty Development Programme  
On  
**RESEARCH METHODOLOGY**

Organized by

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**PADM. DR. V. B. KOLTE COLLEGE OF ENGINEERING,**  
**MALKAPUR, DIST- BULDANA-443101 (M.S.)**

Email: coemalkapur@rediffmail.com, Website: www.coemalkapur.ac.in, Ph. (07267) 295037  
Approved by AICTE-New Delhi, Govt. of Maharashtra, DTE-Mumbai & Affiliated to SGBAU, Amravati  
Accredited by NAAC (UG) & NBA (Diploma)



In Association with

**IQAC, Sant Gadge Baba Amravati University, Amravati**  
**Institution of Engineers (IEI), Aurangabad Local Chapter**  
**Indian Society for Technical Education**  
**IQAC, Dr. V. B. Kolte College of Engineering, Malkapur**



# CERTIFICATE

This Certificate is Proudly Presented to

**Dr. Shivakumar B Khaple**  
of **J.S.P.M., Narhe Campus, Narhe**

For participating in National Level One Week Faculty Development Programme on "**Research Methodology**", organized by the Department of Mechanical Engineering, Padm. Dr. V. B. Kolte College of Engineering, Malkapur in association with IQAC Cell, SGBAU, Amravati, ISTE Faculty Chapter of VBKCOE-Malkapur, IE(I) Aurangabad Local Chapter & IQAC-VBKCOE, Malkapur.

From 02<sup>nd</sup> May to 6<sup>th</sup> May 2023

Certificate Code: VBKCOEFDP13092

Prof. P. G. Firke  
Program Co-ordinator

Prof. S. R. Shekokar  
Head of Dept.

Dr. A. W. Kharche  
Principal

Date:- 09/05/2023

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. S.B. Khaple Working in Civil D. Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Buldana

for attend Workshop/FDP/Conference one week national level FDP on RM.

from Dt. 02/05/23 to 06/05/23 . Please find the Attached for total expense.

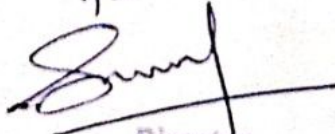
S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	2300/-
	Total	6200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

Sanctioned  
and forwarded  
to accounts

  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411011







# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute :

JSPM Narhe Technical Campus

Campus Name :

Narhe Technical Campus

## PAYMENT VOUCHER

Date/21/05/2023  
No. :

Rs. 6200/-

Pay Mr. / Mrs. Dr. S. B. Khaple

a sum of Rs. Six thousand two hundred

being Nehru Level FDP on Research Methodology at

N.B Kolk  
College  
Buldhana

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 6200/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]

Accountant

[Signature]

Principal/Director

JSPM Narhe Technical Campus

[Signature]

Receiver's Signature

# *Certificate of Participation*

*Priyanka Raju Balage*

has completed One Week

Faculty Development Programme on

*Machine Learning with PYTHON*

organised by this Institute

from 13th February to 17th February, 2023 successfully.



NATIONAL INSTITUTE OF  
TECHNICAL TEACHERS'  
TRAINING AND RESEARCH  
(NITTR) KOLKATA

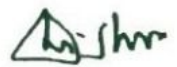
(Established by the  
Ministry of Education  
Government of India)



Programme Coordinator(s)



Dr. Urmila Kar  
FIC, Academic Affairs



Prof. Debi Prasad Mishra  
Director

Date:- 20/02/2023

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Priyanka R. Balage Working in Computer Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from pune to & fro Kolkata.

for attend Workshop/FDP/Conference One week FDP on Machine Learning with Python.  
from Dt. 12/02/23 to 17/02/23. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	3500/-
3	Extra Expense	800/-
	Total	5800/-

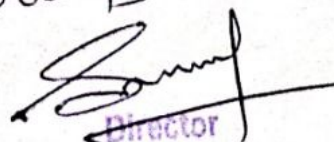
Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature



Sanctioned  
and forwarded to  
accounts

  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute :

JSPM Nash Technical Campus

Campus Name :

Nash

## PAYMENT VOUCHER

Date: 24/10/2023

No. :

Rs. 5800/-

Pay Mr. / Mrs.

P. R. Balga

a sum of Rs.

5800/-

being FDP on Machine Learning with Python @ Kolkata, NITRR

and debit on \_\_\_\_\_ account.

Received the sum of

Rs. 5800/-

Paid by cash / cheque on \_\_\_\_\_

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant

*P. S. Ghosh*

Principal/Director

Director

Receiver's Signature

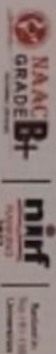
*P. Balga*

JSPM Nash Technical Campus

Nash, Dist. Nadia, West Bengal



# KALINGA UNIVERSITY



National Conference  
on

Recent Innovations in Emerging Computer Technologies – NCRIECT (2023)  
09<sup>th</sup> & 10<sup>th</sup> May 2023

## CERTIFICATE OF PARTICIPATION

This is to certify that Prof./Dr./Mr./Ms./Mrs. Manisha Pawan Hajare, Research Scholar  
from Kalinga University, Naya Raipur (C.G.) has participated and presented a paper  
titled A review on opportunistic growing systems for the Internet of in the National  
Things. in the National  
Conference organized by the Department of Computer Science & Faculty of Information Technology on 09<sup>th</sup> & 10<sup>th</sup> May 2023 at

Kalinga University, Naya Raipur.

Co-Convenor  
**Mr. Omprakash Dewangan**  
Assistant Professor, CS & IT

Patron  
**Dr. Asha Ambhaikar**  
Professor, CS & IT

Convenor  
**Dr. R. Udaya Kumar**  
Dean, CS & IT

**Dr. Sandeep Gandhi**  
Registrar,  
Kalinga University

[www.kalingauniversity.ac.in](http://www.kalingauniversity.ac.in)

KALINGA UNIVERSITY, KOTNI, NEAR MANTRALAYA, NAYA RAIPUR - 492101, CHHATTISGARH, INDIA

Date:- 17/05/23

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am M.P. Hajase Working in E & TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from 8/05/23 to & fro 11/05/2023

for attend Workshop/FDP/Conference International conference on Anterior opportunity linking system for ICT,  
from Dt. 9/05/23 to 10/05/23. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,000/-
2	Travelling Allowance	3,000/-
3	Extra Expense	2,000/-
	Total	6,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

Sanctioned and forwarded to accounts



  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : NTC

Campus Name : JSPM, NTC, Marhe Pune

## PAYMENT VOUCHER

Rs. 6000

Date: 20 / 5 / 2023  
No. :

Pay Mr. / Mrs. M.P. Hajare

a sum of Rs Six Thousand

being conf. Arxivcon opportunistic routing system for IOT under water things. (Kalinga Univ.)  
and debit on \_\_\_\_\_ account. Received the sum of

Paid by cash / cheque on Cash

Rs. 6000


Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director

  
Receiver's Signature

JSPM Marhe Technical Campus

Marhe, Pune - 411041



KOLHAPUR INSTITUTE  
OF TECHNOLOGY'S  
**COLLEGE OF  
ENGINEERING**  
(AUTONOMOUS),  
KOLHAPUR



**40th GISFI STANDARDIZATION SERIES MEETING**  
Jointly with  
**International Conference on 6G and Wireless Network Technologies**

# CERTIFICATE

This is to certify that

Dr./Mr./Mrs./Ms. Supriya Kurlekar

of JSPM Narhe Technical Campus, Pune

Has presented a paper titled "Feature Extraction Using CNN for Image Captioning"

in the "40th GISFI STANDARDIZATION SERIES MEETING Jointly with International Conference on 6G and Wireless Network Technologies ", organized by the Department of Electronics and Telecommunication Engineering, Kolhapur Institute of Technology's College of Engineering (Autonomous), Kolhapur held during 3rd - 5th April 2023.

**Dr. N.B. Sambre**

Co-ordinator  
KITCOEK

**Dr. M.S. Chavan**

Program chair  
KITCOEK

**Dr. Mohan Vanrotti**

Director  
KITCOEK

**Dr. V. V. Karjinni**

Executive Director  
KITCOEK



Date:- 10/04/2023

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mrs. S. P. Kuslekar Working in E & TC Department


Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from 2/4/23 to & fro 06/4/23

for attend Workshop/FDP/Conference International Conference on GG  
from Dt. 3/4/23 to 5/4/23 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3,000
2	Travelling Allowance	1,000/-
3	Extra Expense	1,200
Total		5,200/-


Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

Sanctioned and forwarded  
to account



  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : JSPM, Narhe technical campus

## PAYMENT VOUCHER

Date : 15 / 4 / 2023

No. :

Rs. 5200

Pay Mr. / Mrs. S.P. Kuslekar

a sum of Rs. Five thousand two hundred

being International conference paper - feature extraction, Kolhapur  
on GG & wireless Tech.  
and debit on \_\_\_\_\_ account.

Received the sum of

Rs. 5200

Paid by cash / cheque on Cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Spld

Receiver's Signature

Accountant

Director  
Principal/Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



## 2nd International Conference on Recent Development in Engineering, Sciences, Humanities and Management (ESHM-2023)



# Certificate

This is to certify that

**Atul Ikhe**

has presented and published a paper titled

**Comparison of Demand Side Management using Electric  
Spring and STATCOM**

during International Conference ESHM -2023 with ISBN : 978-93-91535-43-8

held on 18th March 2023

Organized By : **Government Engineering College Bharatpur, Rajasthan**

&

**Institute for Social Reforms and Higher Education Charitable Trust, Uttar Pradesh (India)**

(Regd. with Govt of India NITI Aayog NGO Darpan, Govt. of UP, MHRD India)

*Atul Kumar Sharma*

Dr. Atul Kumar Sharma  
Founder  
Institute for Social Reforms and  
Higher Education

*Prashant Kumar Baheti*

Prashant Kumar Baheti  
Organizing Secretary

*Dr. Naveen Jha*

Dr. Naveen Jha  
Conference Coordinator

*Dr. Ravi Gupta*

Dr. Ravi Gupta  
Organizing Chairman and Principal



BH484

in collaboration with:

 Conference World

[www.conferenceworld.in](http://www.conferenceworld.in)



[www.iardo.com](http://www.iardo.com)

Date:- 01/04/2023

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Atul Dkhe Working in FE Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from 16/04/23 to & fro 20/04/23

for attend Workshop/FDP/Conference International Conference on ESHM

from Dt. 18/4/23 to — . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,500
2	Travelling Allowance	3,000/-
3	Extra Expense	1,100/-
	Total	5,600/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

Sanctioned and forwarded  
to accounts.



  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Rs. 5600

Date: 4 / 4 / 2023  
No. :

Pay Mr. / Mrs. Atul Tkrhe

a sum of Rs. five thousand six hundred  
being Int. con. (FISHM) paper-comparision of Demand side management  
and debit on Rajsthan account. using electric supply station


Paid by cash / cheque on Cash Rs. 5600

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant 

  
JSPM Principal/Director

Receiver's Signature

10021 Campus  
Phone - 411041



Established in 1998

**CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY**

Managed By St. Thomas Mission, Bhilai

Approved by AICTE and Affiliated to CSVTU, Bhilai

If You Aim High, We Provide The Means



**CERTIFICATE  
OF PARTICIPATION**

This is to certify that  
Dr. Manoj A. Kumbhalkar

from

JSPM Narhe Technical Campus, Pune

has presented a research paper titled

Design and Optimization of The Bracket Connected with Actuator and Valve



in "**Technologia: International Conference on Recent Advances in Mechanical Engineering and Nanomaterials – ICRAMEN 2023**" held on 12<sup>th</sup> & 13<sup>th</sup> May 2023, organized by Christian College of Engineering & Technology, Bhilai in association with **Research Association of Masters of Engineering, Pune.**

Dr R H Gajghat  
Convener, ICRAMEN 2023

Dr Dipali Soren  
Principal, CCET, Bhilai

Fr Dr P S Varghese  
Executive Vice Chairman, CCET, Bhilai

Date:- 20/5/23

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am, Dr. M. A Kumbhar Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Bhulai

to attend Workshop/FDP/Conference on Design & optimization of the Bracket connected with Actuator & Valve from Dt. 11/5/23 to 13/5/23. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	2000
2	Travelling Allowance	3000
3	Accommodation	1000
4	Local conveyance	300
	Total	6300 /-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

*Scanned and forwarded to a/c*

Applicant Signature



Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus.

Campus Name : Narhe

## PAYMENT VOUCHER

Date 25/5/2023

No

Rs. 6300/-

Pay Mr. / Mrs M.A Kumbhalkar

a sum of Rs Six thousand three hundred

being conference on Design & optimization of bracket connected with Actuators & valve

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on —

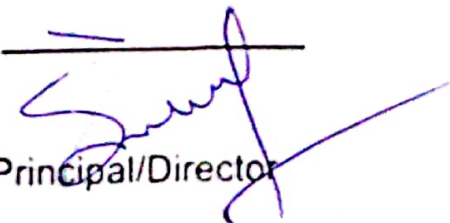
Rs 6300/-


Bank \_\_\_\_\_

Branch —

Cheque No. \_\_\_\_\_ Date —

Accountant

  
Principal/Director

  
Receiver's Signature

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# Certificate



This is to certify that **MRS. ALAKNANDA SOMANATH PATIL** has successfully completed the AICTE-ISTE approved Orientation/Refresher Programme on “**Recent Advances in Materials Science and Engineering**” held during **18.01.2022** to **24.01.2022** organized by **SVERI's College of Engineering, Pandharpur, Maharashtra.**

Director (FDC)  
AICTE, ND

Executive Secretary  
ISTE, ND

Program Coordinator  
SVERI's CE, Pandharpur

Principal  
SVERI's CE, Pandharpur

Date:- 25/01/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am A.S. Patel Working in E & TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from 17/01/22 to & fro 28/01/22

for attend Workshop/FDP/Conference <sup>FDP</sup> On Recent Trends Advances in Mat. Science in Pandharpur.  
from Dt. 18/1/22 to 24/1/22. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,000/-
2	Travelling Allowance	1,000/-
3	Extra Expense	3,500
Total		5,500/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

A.S. Patel  
Applicant Signature



Sanctioned  
and  
forwarded to  
accounts

Sunny  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Rs. 5500

Date : 30/1/2022

No. :

Pay Mr. / Mrs. Dr. A.S. Patil

a sum of Rs. Five thousand five hundred

being FDP Aecend Advances in Material sciene & Engg. (Paudharpur) Swen

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 5500

Bank \_\_\_\_\_

Branch \_\_\_\_\_

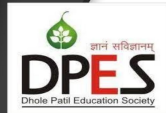
Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director

Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



DHOLE PATIL COLLEGE OF  
ENGINEERING, PUNE



# CERTIFICATE OF PARTICIPATION

PROUDLY PRESENTED TO

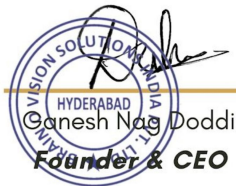
**Pravin Baburao Jarande**

for successful completion of One week Faculty Development Program  
On "Amazon Web Services"

During the period of 22nd August 2022 to 27th August 2022

Organized by **Department of Computer Engineering, Dhole Patil College  
of Engineering, Wagholi, Pune**

in collaboration with **BRAINOVISION SOLUTIONS INDIA PVT.LTD &  
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION - AICTE**



Prof. Rashmi Tundalwar  
Co-ordinator

Dr. Arati Dandavate  
HOD

Dr. Nihar Walimbe  
Principal

Date:- 8/9/22

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Pravin Jazande Working in E&TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from to & fro Waghole

To attend Workshop/FDP/Conference FDP on Amazon web services.

from Dt. to 22/08/22. Please find the Attached for total expense.

to  
27/08/22

S.no	Description	Amount
1	Registration Fees	1,500/-
2	Travelling Allowance	500/-
3	Accommodation/other	.
Total		2,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Sent hand  
and forwarded  
to accounts



Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

Jazande  
Applicant Signature



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date 10 / 9 / 2022

No

Rs. 2000

Pay Mr. / Mrs. Pravin Torade

a sum of Rs two thousand

being FDP Amazon web services

and debit on \_\_\_\_\_ account

Paid by cash / cheque on Cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



## **Kavikulguru Institute of Technology and Science**

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### **One Week Short Term Training Program**

**on**

**Conservation of Energy, Water and Environment – Present and Future**

### **CERTIFICATE**

This is to certify that Dr./Mr./Ms. **BHUSHAN K.MANMODE**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2002

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. Bhashon Manmade Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from pune to & fro Nagpur.

for attend Workshop/FDP/Conference One week trip on conservation of Energy Environ. Present & Future from Dt. 06/03/2001 to 11/03/2001. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500
2	Travelling Allowance	2400
3	Extra Expense	1300
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Bhashon Manmade  
Applicant Signature

Sanctioned and  
forwarded to  
accounts



[Signature]  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date : 12/03/2022

No. :

Rs. 5200

Pay Mr. / Mrs. Bhushan Manmade

a sum of Rs 5200 (five thousand two hundred)

being STP conservation of energy env. present & future

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 5200

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Pradi  
Accountant

  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Dist. - 411011

Receiver's Signature

**GOVERNMENT COLLEGE OF ENGINEERING, KARAD**



**CERTIFICATE**

GECK/Mech\_sttp\_EME/701-53 dated 19.07.2021

This is to certify that Mr./Ms./Prof./Dr Manoj A. Kumbhalkar (Assistant Professor, JSPM NARHE , PUNE)  
Has participated & successfully completed One Week Short Term Training Programme (Online) on

**“Experimental Methods in Engineering”**

Sponsored by

**Technical Education Quality Improvement Programme (TEQIP)**

Organized by

**Department of Mechanical Engineering  
Govt. College of Engineering Karad, Maharashtra**

During 5<sup>th</sup> to 9<sup>th</sup> July, 2021

Prof.K.S.Gharge  
Co-ordinator

Prof.R.K.Shrivastava  
Co-ordinator & Head Mech. Engineering

Prof.A.T.Pise  
Principal

Date:- 12/07/2021

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. M.A. Kumbhalkar Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Karod

for attend Workshop/FDP/Conference One week STTP on experimental methods in Engineering  
from Dt 05/07/21 to 09/07/21 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1200/-
2	Travelling Allowance	800/-
3	Extra Expense	3100/-
	Total	5100/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

Sanction  
Pl. process for vems.  
RACW





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campus  
Campus Name: NTC

## PAYMENT VOUCHER

Date 18/07/2021  
No

Rs. 5100/-

Pay Mr / Mrs M. A. Kumbhalkar

a sum of Rs five thousand one hundred

being STTP on Experimental Method in Engineering at

ONCE  
Karad

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs 5100/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date: \_\_\_\_\_

Beval  
Accountant

R. K. Chavan  
Principal/Director

AA  
Receiver's Signature

JSPM Narhe Technical Campus  
Director



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

**Conservation of Energy, Water and Environment – Present and Future**

### CERTIFICATE

This is to certify that Dr./Mr./Ms. **ASHWIN ANANDRAO KAMBLE**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Ashwin Kamble Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur (M.S)

for attend Workshop/FDP/Conference 1 week STTP on Reseravation of Energy water & Env't. Present & future.

from Dt. 06/3/20 11/03/22 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,500/-
2	Travelling Allowance	2,400/-
3	Extra Expense	1,300/-
Total		5,200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

A. Kamble  
Applicant Signature



Sanctioned  
and  
forwarded to  
accounts

[Signature]  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date: 20/8/2022

No. :

Rs. 5200

Pay Mr. / Mrs. Ashtwin Kamble

a sum of Rs Five thousand two hundred

being STTP on conservation of Energy at KITs Nagpur.

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 5200

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

[Signature]  
Receiver's Signature



## **Kavikulguru Institute of Technology and Science**

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### **One Week Short Term Training Program**

**on**

**Conservation of Energy, Water and Environment – Present and Future**

### **CERTIFICATE**

This is to certify that Dr./Mr./Ms. **SANDEEP BABASAHEB HANKARE**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

**Mr. S. A. Borikar**  
Coordinator

**Dr. S. K. Bhele**  
Coordinator

**Dr. Y. M. Jibhakate**  
HOD, MED & IQAC Coordinator

**Dr. Avinash N. Shrikhande**  
Principal



Date:- 15/05/2022

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Sandeep B. Honkare Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference one week STIP on conservation of tree

from Dt. 06/05/22 to 11/05/22. Envir. present & future. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-.

Thanking you for the same. Kindly do the needfull.

Yours sincerely

S B Honkare

Applicant Signature

Sanctioned  
and forwarded to accounts



Sandeep  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus

Campus Name : NTC

## PAYMENT VOUCHER

Date : 15/3/2022

No. :

Rs. 5,200/-

Pay Mr. / Mrs. S. B. Hankare

a sum of Rs. five thousand two hundred

being STP on Conservation of Energy by KITS Nagpur

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 5200/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

Receiver's Signature



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

**Conservation of Energy, Water and Environment – Present and Future**

### CERTIFICATE

This is to certify that Dr./Mr./Ms. **Prof. S. M. Mangore Patil**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakte  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. S. M. Patil Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur. (M.S)

for attend Workshop/FDP/Conference One week STTP on Conservation of Energy

from Dt. 06/03/2020 to 11/03/22. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

SMPatil

Applicant Signature



Sanctioned and forwarded to accounts

[Signature]  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campus  
Campus Name: NTC

## PAYMENT VOUCHER

Rs. 5200/-

Date 20/03/2022

Pay Mr. / Mrs. S. M. Patil

No.:

a sum of Rs five thousand two hundred

being BTP on Conservation of energy at KITS, Nagpur

and debit on - account.

Received the sum of

Paid by cash / cheque on -

Rs. 5200/-

Bank -

Branch -

Cheque No. - Date: -

Patil  
Accountant

S. M. Patil  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

S. M. Patil  
Receiver's Signature



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

**Conservation of Energy, Water and Environment – Present and Future**

### CERTIFICATE

This is to certify that Dr./Mr./Ms. **JAYESH M. JADHAV**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakte  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. Jayesh M. Jadhav Working in Mechanical Department

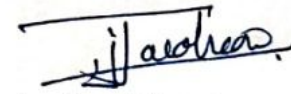
Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference one week STP on conservation of Energy Envi. Present & future. T from Dt. 06/03/22 to 11/03/22. Please find the Attached for total expense.


S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature



Semifinal  
and forwarded to  
accounts.  
  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date : 12 / 03 / 20 22

No. :

Rs. 5200

Pay Mr. / Mrs. Jayesh M. Jadhav.

a sum of Rs. five thousand two hundred

being STP conservation of energy env. present & future

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on Cash.

Rs. 5200

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Pradh  
Accountant

Jadhav  
Principal/Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411011

Jadhav  
Receiver's Signature



GOVERNMENT COLLEGE OF ENGINEERING, KARAD



**CERTIFICATE**

G/ECK/Mech\_sttp\_EME/701-53 dated 19.07.2021

This is to certify that Mr./Ms./Prof./Dr Prashant B. Maitreya (Assistant Professor, JSPM NARHE , PUNE)

Has participated & successfully completed One Week Short Term Training Programme (Online) on

**“Experimental Methods in Engineering”**

Sponsored by

**Technical Education Quality Improvement Programme (TEQIP)**

Organized by

**Department of Mechanical Engineering  
Govt. College of Engineering Karad, Maharashtra**

During 5<sup>th</sup> to 9<sup>th</sup> July, 2021

Prof.K.S.Gharge  
Co-ordinator

Prof.R.K.Shrivastava  
Co-ordinator & Head Mech. Engineering

Prof.A.T.Pise  
Principal

Date:- 12/07/2021

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Prashant Maibeya Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune - to & fro Karad.

for attend Workshop/FDP/Conference One week STTP on Experimental methods in Engineering  
from Dt. 05/07/21 to 09/07/21 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1200/-
2	Travelling Allowance	800/-
3	Extra Expense	3100/-
	Total	5100/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Applicant Signature

Sanctioned process for reimbursement -  
RICKU





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Nashik Technical Campus  
Campus Name: NTC

## PAYMENT VOUCHER

Rs. 5100

Date: 18/07/2021

No.:

Pay Mr. / Mrs. P. B. Maitreya

a sum of Rs. five thousand hundred only

being STTP on Experimental Method in Engineering

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 5100/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Nashik Technical Campus  
Director

[Signature]  
Receiver's Signature

GOVERNMENT COLLEGE OF ENGINEERING, KARAD



**CERTIFICATE**

G/ECK/Mech\_sttp\_EME/701-53 dated 19.07.2021

This is to certify that Mr./Ms./Prof./Dr Bharat Aher (Assistant Professor, JSPM NARHE , PUNE)

Has participated & successfully completed One Week Short Term Training Programme (Online) on

**“Experimental Methods in Engineering”**

Sponsored by

**Technical Education Quality Improvement Programme (TEQIP)**

Organized by

**Department of Mechanical Engineering  
Govt. College of Engineering Karad, Maharashtra**

During 5<sup>th</sup> to 9<sup>th</sup> July, 2021

Prof.K.S.Gharge  
Co-ordinator

Prof.R.K.Shrivastava  
Co-ordinator & Head Mech. Engineering

Prof.A.T.Pise  
Principal

Date:- 12/07/2024

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. B.B. Aher Working in Mechanics Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Korad.

for attend Workshop/FDP/Conference One week STTP on experimental method in Engineering from Dt. 07/07/24 to 09/07/24 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1200 /-
2	Travelling Allowance	800 /-
3	Extra Expense	3100 /-
	Total	5100 /-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

B.B. Aher  
Applicant Signature

Sanctioned  
Process for reimb.  
RICH  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 41044



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM North Technical Campus  
Campus Name : North

## PAYMENT VOUCHER

Date : 15/07/2024  
No :

Rs. 5100/-

Pay Mr. / Mrs. Mr. Bharat Aher

a sum of Rs. five thousand one hundred only

being one week STP on experimental methods in egg.

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 5100/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director

[Signature]  
Receiver's Signature

JSPM North Technical Campus  
North, Pune - 411004



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

### Conservation of Energy, Water and Environment – Present and Future

## CERTIFICATE

This is to certify that Dr./Mr./Ms. **GANESH H. BHOSALE**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. Anant Bhosale Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur.

for attend Workshop/FDP/Conference One week ATP on conservation of Energy, Envir. Present of future.  
from Dt. to . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Anant Bhosale  
Applicant Signature



*Sanctioned and forwarded to accounts*

[Signature]  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: TSPM Narhe Technical Campus

Campus Name: NTE

## PAYMENT VOUCHER

Date: 15/3/2022

No.:

Rs. 5200/-

Pay Mr. / Mrs. Cranesh Bhosale

a sum of Rs. five thousand Two hundred only

being STIP on Conservation of Energy by KIT Nagpur

and debit on \_\_\_\_\_ account.

Received the sum of

Rs. 5200/-

Paid by cash / cheque on \_\_\_\_\_

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 412001

S.no	Description	Amount

GOVERNMENT COLLEGE OF ENGINEERING, KARAD



**CERTIFICATE**

G/ECK/Mech\_sttp\_EME/701-53 dated 19.07.2021

This is to certify that Mr./Ms./Prof./Dr Atul S. Patil (Assistant Professor, JSPM NARHE , PUNE)

Has participated & successfully completed One Week Short Term Training Programme (Online) on

**“Experimental Methods in Engineering”**

Sponsored by

**Technical Education Quality Improvement Programme (TEQIP)**

Organized by

**Department of Mechanical Engineering  
Govt. College of Engineering Karad, Maharashtra**

During 5<sup>th</sup> to 9<sup>th</sup> July, 2021

Prof.K.S.Gharge  
Co-ordinator

Prof.R.K.Shrivastava  
Co-ordinator & Head Mech. Engineering

Prof.A.T.Pise  
Principal

Date:- 12/07/2024

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. Atul C. Patil Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Korad

for attend Workshop/FDP/Conference One week STTP on Experimental methods in Engineering  
from Dt. 05/07/24 to 09/07/24 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1200/-
2	Travelling Allowance	200/-
3	Extra Expense	3100/-
	Total	5100/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Atul C. Patil

Applicant Signature



RICW  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC, Pune.

Campus Name : Norhe

## PAYMENT VOUCHER

Date : 15/07/2024

No

Rs. 5100/-

Pay Mr. / Mrs Mr. Atul C. Patil

a sum of Rs. Five thousand of one Hundred only.

being one week STTK on experimental method in Engineering

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash.

Rs 5100/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : 15/07/2024

[Signature]  
Accountant

[Signature]  
Principal/Director

[Signature]  
Receiver's Signature



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

### Conservation of Energy, Water and Environment – Present and Future

## CERTIFICATE

This is to certify that Dr./Mr./Ms. **GOVIND U. RAIPHALE**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Govind U. Raiphale Working in mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur.

for attend Workshop/FDP/Conference Oneweek STTP on Conservation of Energy Env. Power & future.  
from Dt 08/03/22 to 11/03/22 Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

G U Raiphale  
Applicant Signature



Sanctioned and forwarded to accounts  
Sunny  
Director

JSPM Narhe Technical Campus  
Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC, Pune

Campus Name : Norhe

## PAYMENT VOUCHER

Date : 18/05/2022

No. :

Rs. 5200/-

Pay Mr. / Mrs. Govind U. Karpalke  
a sum of Rs. five thousand Two hundred only  
being One week STTP on conversion of Energy Emi present of  
and debit on \_\_\_\_\_ account.  
Paid by cash / cheque on cash  
Bank \_\_\_\_\_  
Branch \_\_\_\_\_  
Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

Received the sum of

Rs. 5200/-

Accountant

Principal/Director

JSPM Norhe Technical Campus

Phone No - 411041

Receiver's Signature

G. Karpalke



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

### Conservation of Energy, Water and Environment – Present and Future

## CERTIFICATE

This is to certify that Dr./Mr./Ms. **PRADEEP UTTAM GAIKWAD**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal



Date:- 15/03/2002

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Pradeep Guikwad Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur.

for attend Workshop/FDP/Conference one week stay on conservation of Energy env. Present & future.  
from Dt. to . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-


Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned and forwarded to accounts*



  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date : 18/8/2022

No. :

Rs. 5200

Pay Mr. / Mrs. Pradeep Gaikwad

a sum of Rs. Five thousand two hundred

being STIP conservation of energy env. present & future

and debit on \_\_\_\_\_ account.

Paid by cash / cheque on cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Ve  
Accountant

[Signature]  
Principal/Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

Received the sum of

Rs. 5200

[Signature]

Receiver's Signature



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

### Conservation of Energy, Water and Environment – Present and Future

## CERTIFICATE

This is to certify that **Dr./Mr./Ms. Madhuri Suhas Deokar**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. M.S. Deokar Working in mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur.

for attend Workshop/FDP/Conference one week stop on Conservation of Energy  
water env. present of future  
from Dt. 06/03/22 to 11/03/22 Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500 /-
2	Travelling Allowance	2400 /-
3	Extra Expense	1300 /-
Total		5200 /-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

M.S. Deokar

Applicant Signature

*Submitted  
and forwarded to  
accounts*



*[Signature]*  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campus  
Campus Name: NTC

## PAYMENT VOUCHER

Rs. 5200

Date 2013 120 22

Pay Mr. / Mrs. M. P. Deskar

No. :

a sum of Rs. five thousand two hundred

being STP on Conservation of Energy, water & environment 12 ITS

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 5200/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

Pradil  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

M. P. Deskar  
Receiver's Signature



## Kavikulguru Institute of Technology and Science

(Managed by Vodithala Education Society, Hyderabad)

Ramtek, Nagpur (M.S.)

Accredited by NAAC, Approved by AICTE and COA, New Delhi

Permanently affiliated to RTM Nagpur University, Nagpur

### One Week Short Term Training Program

on

### Conservation of Energy, Water and Environment – Present and Future

## CERTIFICATE

This is to certify that Dr./Mr./Ms. **Vinaykumar Raje**

of JSPM Narhe technical campus, Narhe, Pune Maharashtra India has participated in One Week Short Term Training Program (STTP) on “**Conservation of Energy, Water and Environment – Present and Future**” organized by Department of Mechanical Engineering under Internal Quality Assurance Cell from 7<sup>th</sup> to 11<sup>th</sup> March 2022.

Mr. S. A. Borikar  
Coordinator

Dr. S. K. Bhele  
Coordinator

Dr. Y. M. Jibhakate  
HOD, MED & IQAC Coordinator

Dr. Avinash N. Shrikhande  
Principal

Date:- 15/03/2022

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. Vinay Kumar Rajee Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference one week STIP on conservation of Energy water, Envi. present of Future from Dt. 06/03/22 to 11/03/22. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2400/-
3	Extra Expense	1300/-
	Total	5200/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

V. Rajee  
Applicant Signature



Sanctioned  
and forwarded  
to accounts

Sunny  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune-411044



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute Jspm Narhe Technical Campus  
Campus Name : NTC

## PAYMENT VOUCHER

Date 10/03/2022

Rs. 5200/-

No. \_\_\_\_\_

Pay Mr. / Mrs. Vinaykumar Rajee

a sum of Rs Five thousand two hundred

being STP on Conservation of Energy, organised by KITS

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs 5200/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

Beadi  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

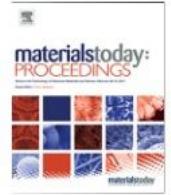
[Signature]  
Receiver's Signature





Contents lists available at ScienceDirect

## Materials Today: Proceedings

journal homepage: [www.elsevier.com/locate/matpr](http://www.elsevier.com/locate/matpr)

## An insight into biomechanical study for replacement of knee joint

M.A. Kumbhalkar<sup>a,\*</sup>, K.S. Rambhad<sup>a</sup>, Nand Jee Kanu<sup>a,b</sup><sup>a</sup> Department of Mechanical Engineering, JSPM Narhe Technical Campus, Pune, Maharashtra, India<sup>b</sup> S. V. National Institute of Technology, Surat, Gujrat, India

## ARTICLE INFO

## Article history:

Available online xxxx

## Keywords:

Biomechanics  
Knee arthroplasty  
Finite element analysis  
Patellofemoral joint  
Tibiofemoral joint

## ABSTRACT

A knee joint sustains entire body load and there is surface contact between femur-patella and femur-tibia bounded with quadriceps muscles. An injury in knee joint may occur due to osteoarthritis disease which causes wearing between surfaces and also due to accident which causes muscle breakage, patella failure, tibiofemoral failure. The methodology involves an analytical approach using applied mechanics, biomedical and mechanical experimentation and validation with finite element analysis. The paper discusses a study on different methodologies used for replacement in tibiofemoral and patellofemoral component of knee joint. The methodologies are mainly playing an important role in various movements such as walking, running, jumping, climbing at various flexion, extension and squat position. A computer aided design tool is used and discussed to prepare exact shape of knee implant model for smooth performance at all conditions.

© 2021 Elsevier Ltd. All rights reserved.

Selection and peer-review under responsibility of the scientific committee of the 3rd International Conference on Advances in Mechanical Engineering and Nanotechnology.

## 1. Introduction

Biomechanics means the study, using mechanical methods, of the structure, function and movement of the human body parts, from organisms, cells, and cells at all stages. Biomechanics is a bio-physics industry. The articulation of the knee is flipped to the thigh bone. Muscles of Quadriceps under the knee are bound. It is the important and crucial joint in the physical body. The knee may be a modified hinge joint, which allows flexion and extension also as slight internal and external rotation. The knee is susceptible to injury and to the event of osteoarthritis. Knee joint have two compounds named as tibiofemoral and patellofemoral components. It plays an important role in movement associated with carrying the weight in horizontal (running and walking) and vertical (jumping) directions. At birth, the kneecap is formed simply by cartilage, which is classified between 3 and 5 years [1,2].

Different forces acting on the knee and excessive ligament pressure due to overload are exerted at several actions, which affects knee function due to injuries such as ligament rupture. The two different forces which act on the knee joint are static and dynamic forces. Static strength is used if the body rests or not in movement, while the Dynamic force is moving or accelerating when the body

is moving. The knee joint can be examined with the help of the ANSYS software and other forces may be applied to the knee by produces a two and three-dimensional model for the CAD software. The sustainability of the knee bones helps to know this [3,4].

## 1.1. Knee joint

The knee joint is nothing but a synovial joint. It allows for flexion and extension (and a small degree of medial and lateral rotation). It is the most complex joint in a human body. The knee provides mobility and support during various activities. It also supports during weight bearing and provides mobility during non-weight bearing. Involved with almost and functional activity of the lower extremity. It is formed by joining between the patella, femur and tibia as shown in Fig. 1. The thigh bone (Femur) the shin bone (Tibia) and the kneecap (Patella) articulate through tibiofemoral and patellofemoral joints as shown in Fig. 2. These bones are covered with an extremely hard and smooth articular cartilage designed to reduce frictional forces. The patella is located in a tincture called the intercondylar groove.

The knee is tibiofemoral and patellofemoral with two articulations. The surfaces of the joints are covered with cartilage hyaline. In one joint cavity they are enclosed. The tibiofemoral joint is a synovial articulation that connects the remote femur to the tibia. It is the main component that can carry weight in the knee joint.

\* Corresponding author.

E-mail address: [manoj.kumbhalkar@rediffmail.com](mailto:manoj.kumbhalkar@rediffmail.com) (M.A. Kumbhalkar).<https://doi.org/10.1016/j.matpr.2021.05.202>

2214-7853/© 2021 Elsevier Ltd. All rights reserved.

Selection and peer-review under responsibility of the scientific committee of the 3rd International Conference on Advances in Mechanical Engineering and Nanotechnology.

Date:- 24/03/2024

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr M. A Kumbhakar Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from to & fro, Pune to NITTT Akhond.

To attend Workshop/FDP/Conference

from Dt. to 18, 19, March 2024. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	2000
2	Travelling Allowance	3000
3	Accommodation/other	600
	Total	5600/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

*Sanctioned and forwarded to account*

RKW

Applicant Signature



Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Date : 25/03/2021  
No :

Rs. 3600/-

Pay Mr. / Mrs. M. A. Kumbhalkar

a sum of Rs. Three thousand Six hundred.

being Conjunctive on Aerobic Biological treatment of Wastewater

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 3600/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant

RKCW  
Principal/Director  
Director

(Signature)  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

PAPER • OPEN ACCESS

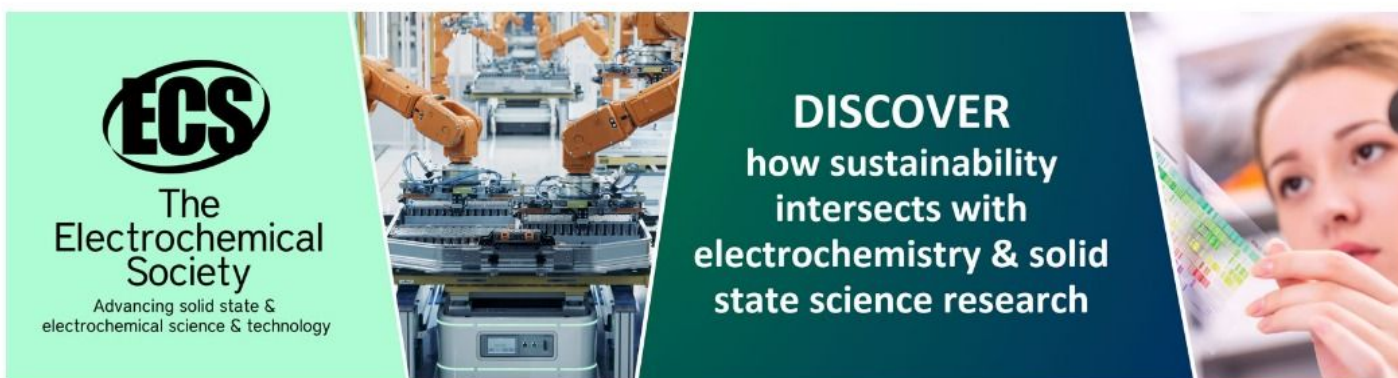
## Anaerobic Biological Treatment of Distillery Wastewater – Study on Continuous Stirred Tank Reactor

To cite this article: D. D. Mohite and S. S. Salimath 2020 *IOP Conf. Ser.: Mater. Sci. Eng.* **814** 012030

View the [article online](#) for updates and enhancements.

You may also like

- [Method of Preparation for Particle Growth Enhancement of  \$\text{LiNi}\_{0.8}\text{Co}\_{0.15}\text{Al}\_{0.05}\text{O}\_2\$](#)   
Songhun Yoon, Chul Wee Lee, Young San Bae et al.
- [Flow Analysis of the Symmetric Airfoil NACA0015 Blade at Different Angles of Attack and Mixing Velocities in a Continuous Stirred Tank Reactor \(CSTR\)](#)  
W Manosroi, C Phapisarn, N Moonmuang et al.
- [A latent representation dual manifold regularization broad learning system with incremental learning capability for fault diagnosis](#)  
Miao Mou, Xiaoqiang Zhao, Kai Liu et al.



**ECS**  
The  
Electrochemical  
Society  
Advancing solid state &  
electrochemical science & technology

**DISCOVER**  
how sustainability  
intersects with  
electrochemistry & solid  
state science research

Date:- 12/03/2020

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am D.D. Mohite Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference on Anaerobic Biological treatment of Distillery waste water  
from Dt. (Paper Presentation) to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	6000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		6,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

D. Mohite  
Applicant Signature

Sanctioned  
Process for reimbursement  
NCH



Director  
JSPM Narhe Technical Campus  
Narhe, Pune-41



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date : 17/3/2020.

No. :

Rs. 6000

Pay Mr. / Mrs. D. D. Mohite

a sum of Rs. Six thousand

being conf. on Anaerobic Biological treatment of Distillery waste water

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs 6000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 412 111

PAPER • OPEN ACCESS

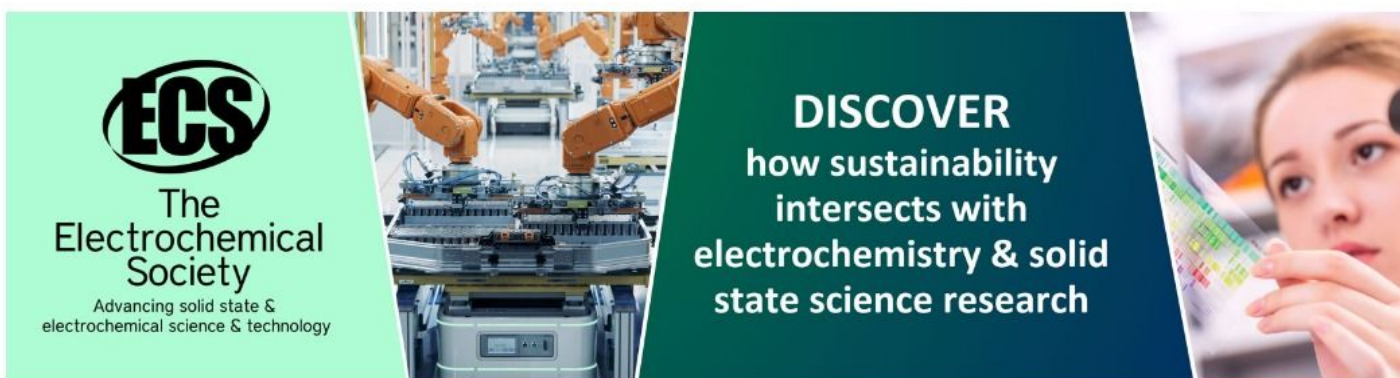
## Application of Light Interference Technique for Locating Groundwater Veins

To cite this article: Vijay V Muthekar *et al* 2020 *IOP Conf. Ser.: Mater. Sci. Eng.* **814** 012027

View the [article online](#) for updates and enhancements.

You may also like

- [Groundwater resources, climate and vulnerability](#)  
C Isabella Bovolo, Geoff Parkin and Marios Sophocleous
- [Identification of freshwater - saltwater interface in coastal areas using combination of geophysical and geochemical methods: A case study in Mekong Delta, Vietnam](#)  
Quang-Khai Ha, Phu Le Vo, Chu-Nam Phan *et al.*
- [Research on calculation and optimal allocation of groundwater resources in Rizhao coastal area](#)  
Yang Bengu, Yang Peng, Zhu Wei *et al.*



**ECS**  
The  
Electrochemical  
Society  
Advancing solid state &  
electrochemical science & technology

**DISCOVER**  
how sustainability  
intersects with  
electrochemistry & solid  
state science research

Date:- 07/04/2020

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am V.V. Muthekar Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference on Life interference tech. for locating Ground water wells.  
from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	6000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		6,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Muthekar

Applicant Signature



NCW  
Director  
JSPM Narhe Technical Campus  
(Pune-41)





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date 11 / 4 / 2020

No

Rs. 6000

Pay Mr. / Mrs. V. V. Muthekar

a sum of Rs six thousand

being conf. on lite interference technique for locating ground water wells

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 6000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Director  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 412 311

[Signature]  
Receiver's Signature



## Experimental analysis of grey water treatment in rural areas using nanno metal oxides

Mr. S. S. Bansode, Mr. Prashant Jagade, Mr. Bankar Sagar and Mr. Kunal Pasalkar  
 JSFM Narhe Technical Campus, Narhe, Pune, M. S., India - 411 041  
 Email: ssbansode.78@gmail.com

### Abstract

The scarcity of fresh water is one of the major issues in rural areas. The primary objective of this study is to find the new sources of water for non potable use such as toilet flushing, ground water recharging, garden irrigation and floor washing. Secondary objective is to treat that source for safe and clean usage. Grey water is waste water generated from bath, shower, sink, cloth washing. Grey water is safe water after potable water. It can minimize potable water demand for non potable use. Statistical analysis of total waste water consumption, grey water production and treated water generation is shown here. In this study laboratory scale model has been developed and checked for domestic use. Various naturally available materials such as vitrified tiles pieces, sand, gravel, mat filters and nano metal oxide are used. Gravel used as a biological filtration system. Sand filter remove pathogens from water. Nano metal oxide act as absorbent for heavy metal. Some nano metal is very effective biocide against gram positive and gram negative bacteria. By this model various parameters of grey water is minimized such as Hardness up to 50-55%, TSS up to 80-85%, TDS up to 70-75%, COD up to 80-85% and BOD 87%. The analysis shown that treated water obtained from grey water is sufficient to satisfy the non potable demand such as toilet flushing, plant irrigation, ground water recharging and floor cleaning. The study reveals that it is possible to save lot of fresh water in rural areas every day by recycling and reusing treated grey water. In this system periodical maintenance is required. Without prior treatment kitchen waste water cannot be treated by this system. Treated water is used only for non potable demand.

**Key Words:** Grey water, nano-metal oxide, COD, TSS, recycling and reuse

### Introduction

Water is becoming imitable resources in the rural areas. As per Al-Jazeera news on 27 JUL 2019 nearly 600 million Indians nearly half of the populations are facing acute water shortage in summer. In Beed District of Maharashtra state, more than 6000 tankers supply water to 15000 village every day in summer 2019.

With increasing population, water becomes rare resource it is creating threat to human. So we need to find alternative source to save the fresh water. By finding new source of water for non potable use such as toilet flushing, landscaping, ground water recharging, garden irrigation. Various scientists in the world are working on new way of conserving water. It includes grey water treatment. Grey water is purest form of waste water. Grey water is waste water generated from domestic processes such as cloths washing, bathing and hand basin. About 40-50% of waste water is grey water. Grey water also includes kitchen waste water but it contains bacteria so not use in this treatment. Grey water has potential as a resource that can be used as non potable use such as toilet flushing, ground water recharging, landscaping, garden irrigation and floor washing.

### Water consumption in rural areas

As per IS 1172-1957 the domestic water consumption is about 135 lit/capita/day under normal conditions but in drought time it goes down to 55lit/capita/day. In normal condition 40-50 lit/capita/day waste

Date:- 11/03/2020

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. S.S. Bansode Working in Civil Engg. Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from to & fro —

To attend Workshop/FDP/Conference on paper on Gray water treatment using Nanometal oxide.  
from Dt. to — . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	5100 /-
2	Travelling Allowance	—
3	Accommodation/other	—
Total		5100 /-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

*Sanctioned & forwarded to account...*

Bansode  
Applicant Signature

R. W.  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe  
Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 5100/-

Date : 15/03/2020  
No :

Pay Mr. / Mrs. Mr. S. S. Bansode

a sum of Rs. Five thousand one Hundred

being paper on Grey water treatment using nanometals etc

and debit on — account.

Received the sum of

Paid by cash / cheque on cash.

Rs. 5100/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant  
Accountant

Principal/Director  
Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

Receiver's Signature  
Receiver's Signature

049066



The Institution of Engineers (India)

MEMBERSHIP  
CERTIFICATE

This Certificate of  
Member is Granted to


SHIVAKUMAR KHAPLE

on the Nineteenth day of  
March TWO ZERO TWO ZERO

In witness where of the said Institution has caused  
its Common Seal to be affixed this Nineteenth  
day of March TWO ZERO TWO ZERO



M-1683181

  
Member of Council

  
Secretary and Director General

Date:- 17/03/2020

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. S. B. Khaple Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference Lifetime Membership of institute of Eng.

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	5000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		5,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

S. B. Khaple  
Applicant Signature

*Process for reimbursement -*

R. K. W.  
Director  
JSPM Narhe Technical Campus  
Narhe Pune-411001





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date 21/3/2020

No

Rs. 5000

Pay Mr. / Mrs. Dr. Shivkumar B. Khaple

a sum of Rs Five thousand

being Lifetime membership of the institute of Engineers

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash


Rs 5000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal Director  
JSPM Narhe Technical Campus  
Narhe, Dist. - 412211

  
Receiver's Signature



RAVINDRA LAD

## Pavement Performance Index for Rating of Flexible Pavements

Authors Shruti S Wadalkar, RK Lad, RK Jain

Publication date 2020

Conference Techno-Societal 2018: Proceedings of the 2nd International Conference on Advanced Technologies for Societal Applications-Volume 1

Pages 683-691

Publisher Springer International Publishing

Description In this paper author has made an attempt to develop a Pavement Performance Index (PPI) for a rating of flexible pavements. For the development of the PPI model, normalized method of fuzzy multiple criteria decision making method has been used. Total sixteen parameters have been considered as structural and functional indicators. Expert's opinion was taken from the field of transportation engineering in the form of linguistic terms. These terms were then converted into fuzzy numbers and a model has been developed to determine pavement performance index. The evaluation of the model has been shown in the paper by illustrative example, in which three segments of roads were considered and the values for all indicators were assumed. By converting these values into fuzzy number PPI of the three segments of the road was evaluated and rating of roads was done. From this research work, it has been ...



Date:- 14/04/20

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. R.K. Had Working in \_\_\_\_\_ Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference Pavement Performance index for rating of flexible pavements Springer  
from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	8000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		8,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Applicant Signature



*Sanctioned process for reqd.*

*R.K.H.*  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: NTC, JSPM

Campus Name: Narhe Technical Campus.

## PAYMENT VOUCHER

Rs. 8000

Date: 18/4/2020.  
No.:

Pay Mr. / Mrs. Dr. R. K. Lad

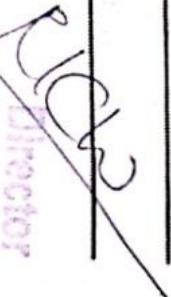
a sum of Rs. Eight thousand  
being Conference - Payment - Performance Index for rating of Flexible Payments  
and debit on \_\_\_\_\_ account.

Paid by cash / cheque on CASH Received the sum of  
Rs. 8000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

  
Director

Accountant

  
Principal/Director

Receiver's Signature



Sinhgad Institutes

Sinhgad Technical Education Society's

**SINHGAD INSTITUTE OF MANAGEMENT & COMPUTER APPLICATION**

(NAAC Accredited with 'A' Grade)

Pune, Maharashtra, INDIA

Organizes



## 5<sup>th</sup> International Conference

*Innovations in IT and Management (5<sup>th</sup> ICI<sup>2</sup>TM-2020)*

6<sup>th</sup> & 7<sup>th</sup> February 2020

# Certificate

This is to certify that Dr. / Prof. / Mr. / Ms. Sanjay Solanki  
of JSPM's, Nashik Campus Pune Maharashtra, India.  
has Attended /Participated & Presented Paper titled cloud Applications for ICT  
based Schools. in the two days 5<sup>th</sup> International Conference  
on "Innovations in IT and Management" (5<sup>th</sup> ICI<sup>2</sup>TM-2020) held on 6<sup>th</sup> and 7<sup>th</sup> February 2020.

**Dr. Anamika Singh**

Director - SIMCA & Chief Convener

Date:- 15/02/2020

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. Sanjay Solanki Working in MCA Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference cloud application for ICT International conf. on Innovations (ICE TM) from Dt. 06/02/20 07/02/20. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	6,000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		6,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

S. Solanki  
Applicant Signature

Sanctioned

process for \_\_\_\_\_

RICH  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date 20/2/2020

No

Rs. 6000

Pay Mr. / Mrs Dr. Sanjay Solanki

a sum of Rs. Six thousand (ICITM)

being cloud application for ICI - International Conference Innovations INT

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 6000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director

  
Receiver's Signature

# Certificate


INTERNATIONAL CONFERENCE  
ON  
ADVANCES IN MECHANICAL & ELECTRICAL ENGINEERING




## ICAMEE - 2019

Organized by  
G H Raison College  
of Engineering, Nagpur

This is to certify that Amol Chaudhary / Laukik Raut / K.S. Rambhad, has presented the paper entitled as An experimental investigation of solar assisted solid desiccant dehumidifiers fabricated with in *International Conference on Advances In Mechanical & Electrical Engineering (ICAMEE - 19)*, held during <sup>at Nagpur</sup> 24-25 August 2019 at G H Raison College of Engineering, Nagpur, India.

  
**Dr. Sunil Nanngrani**  
General Chair

  
**Dr. Abhay Khalatkar**  
General Chair

  
**Dr. Preeti Bajaj**  
Director

Date:- 25/08/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. K.S. Rambhad Working in Mech. Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference

from Dt. 24/08/19 25/08/19 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,500/-
2	Travelling Allowance	3,000/-
3	Extra Expense	500/-
	Total	5,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

K.S. Rambhad  
Applicant Signature

Sanctioned

process for reme.



RICH  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date : 30/8/2019

No :

Rs. 5500

Pay Mr. / Mrs. Dr. K. S. Rambhad

a sum of Rs. five thousand five hundred

being International conference - paper - an experimental investigation of solen associated solid dielectric dielectric <sup>2019</sup>

and debit on \_\_\_\_\_ account. Received the sum of

Paid by cash / cheque on cash

Rs 5500

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 412004



Home > Plant Physiology > Biological Science > Botany > Desiccation

Chapter

Performance Investigation of Desiccant Wheels for Air Dehumidification

February 2022

DOI: [10.1007/978-981-16-6879-1\\_26](https://doi.org/10.1007/978-981-16-6879-1_26)

In book: Smart Technologies for Energy, Environment and Sustainable Development, Vol 2 (pp.257-264)

Authors:



**Kishor S Rambhad**  
JSPM Narhe Technical Campus Pune



**Manoj Kumbhalkar**  
JSPM Narhe Technical Campus, Pune



**Vednath P Kalbande**  
G. H. Rasoni College of Engg. Nagpur



Show all 6 authors

Request full-text

Download citation

Copy link



To read the full-text of this research, you can request a copy directly from the authors.

Citations (3)

References (19)

Abstract

This work compares the performance of simple silica gel desiccant wheel (SG) and composite desiccant (CD) wheels using parabolic trough solar collector (PTSC) as a heat source. The adsorption rate (AR) and regeneration rate (RR) were checked experimentally. From experimental investigations, it was observed that CD wheel having composition silica gel-lithium chloride-molecular sieve (SG-LiCl-MS) has enabled more AR and RR. It was observed that the percentage improvement in adsorption rate (PIAR) is 35%, 43.6%, and 85.5%, the percentage improvement in (PIRR) is 5.7%, 7.1%, and 14.4% for CD wheel made from SG-MS, SG-LiCl, and SG-LiCl-MS, respectively. The same wheel showed wheel effectiveness in adsorption sector of 0.234 and wheel effectiveness in regeneration sector of 2.366. **Keywords** Adsorption rate Composite desiccant wheel Parabolic trough solar collector

Discover the world's research

- 25+ million members
  - 160+ million publication pages
  - 2.3+ billion citations
- [Join for free](#)

No full-text available



To read the full-text of this research, you can request a copy directly from the authors.

Request full-text PDF

Citations (3)

References (19)

Evaluation of carbon dioxide emissions dispersion from crude oil production of Garraf oil field in Iraq

Conference Paper

Full-text available

Jan 2023

Date:- 01/05/2020

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. M. A. Kumbhalkar Working in Mech. Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

for attend Workshop/FDP/Conference Performance investigation of Decent wheels for Air Dehumidification Conf - Paper  
from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	7,000/-
2	Travelling Allowance	—
3	Extra Expense	—
Total		7,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Applicant Signature



Sanctioned  
process for reimb.

R. K. W.  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date : 4/5/2020

No :

Rs. 7000

Pay Mr. / Mrs. Dr. M. A. Kumbhalkar

a sum of Rs. Seven thousand

being Performance investigation of Desiccant wheels for Air Dehumidification  
conference paper

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 7000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Dist. Solapur

  
Receiver's Signature



LM 126501

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**SHIVAKUMAR KHAPLE**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



  
EXECUTIVE SECRETARY

Date:- 21/3/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. S.B. Khapale Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned & Forwarded to Account*



  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 3540

Date : 21/03/2019

No

Pay Mr. / Mrs. Dr. Shivkumar B. Khaple

a sum of Rs. Three thousand five hundred & forty only

being Lifetime membership of 'ISTE'

and debit on - account.

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank -

Branch -

Cheque No. - Date : -

Khadme  
Accountant

UCh  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411017

[Signature]  
Receiver's Signature



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 3540/-

Date 21 / 03 / 2019

No

Pay Mr. / Mrs DR. B. K. Lad

a sum of Rs Three thousand five hundred & forty only

being Life time membership of 'ISTE'

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on Cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Kadum  
Accountant

RKL  
Principal/Director

RKL  
Receiver's Signature

Date:- 21/3/19.

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. R.K. Lad Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

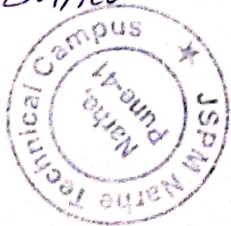
Thanking you for the same. Kindly do the needfull.

Yours sincerely

RKW

Applicant Signature

*Somentioned & Rewashed to Account*



RKW  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Narhe

## PAYMENT VOUCHER

Date : 21 / 03 / 2019

No

Rs. 3540

Pay Mr./Mrs. Prof. Namrata Tajoo

a sum of Rs. Three thousand five hundred & forty only

being Lifetime membership of 'ISTE'

and debit on \_\_\_\_\_ account.

Paid by cash / cheque on cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Kadung  
Accountant

R. Kelkar  
Principal/Director

Received the sum of

Rs 3540/-

Namrata  
Receiver's Signature

Date:- 21/3/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Narmata Jajoo Working in \_\_\_\_\_ Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	—
3	Accommodation	—
4	Local conveyance	—
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

NJajoo  
Applicant Signature

*Sanctioned & Reversed to Account*



NCH

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



LM 126503

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**MAHESH D. ANAD**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



EXECUTIVE SECRETARY

Date:- 21/9/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mahesh Anap Working in civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

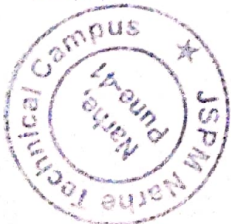
S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

M Anap  
Applicant Signature

*Sanctioned & Reimbursed to Account*



RICK  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411014



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute JSPM NTC

Campus Name : Nashe

## PAYMENT VOUCHER

Date 21/03/2019

No

Rs. 3540/-

Pay Mr. / Mrs Prof. Mahesh D. Anap

a sum of Rs Three thousand five hundred & forty only

being Lifetime membership of ISTE

and debit on - account

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank -

Branch -

Cheque No - Date -

K. S. Kulkarni  
Accountant

M. D. Anap  
Principal/Director  
JSPM Nashe Technical Campus  
Director

Anap  
Receiver's Signature



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM NTC

Campus Name : Nagpur

## PAYMENT VOUCHER

Date: 21/03/2019  
No

Rs. 3540/-

Pay Mr. / Mrs. Dr. Sumant A. Choudhari

a sum of Rs. Three thousand five hundred & forty only

being Lifetime membership of 'IETE'

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Kadone  
Accountant

RCT  
Principal/Director  
Director

Sumant

Receiver's Signature

Date:- 2/13/19

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. Sumant Choudhary Working in Civil Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

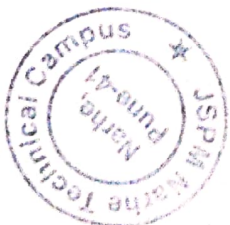
S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned & Reversed to Account*



  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campus  
Campus Name: Narhe

## PAYMENT VOUCHER

Rs. 3540

Date: 21/12/19  
No

Pay Mr / Mrs DR. R. H. Kulkarni

a sum of Rs Three thousand five hundred forty

being ISTE member

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank -

Branch -

Cheque No - Date -

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am R. H. Kulkarni Working in \_\_\_\_\_ Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

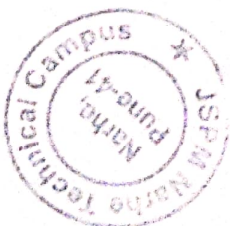
Thanking you for the same. Kindly do the needfull.

Yours sincerely

RHK

Applicant Signature

*Sanctioned & Reversed to Account*



RHK

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Nobe Technical Campus  
Campus Name : Nobe

## PAYMENT VOUCHER

Date : 1 / 1 / 2019  
No

Rs. 3540

Pay Mr. / M/s. Prof. Vilas Gaikwad

a sum of Rs. Three thousand five hundred forty

being ISTE member

and debit on \_\_\_\_\_ account.

Paid by  cash / cheque on cash

Bank -

Branch -

Cheque No. - Date : -

Received the sum of

Rs. 3540/-

Rubil  
Accountant

RCh  
Principal/Director

[Signature]  
Receiver's Signature

JSPM Nobe Technical Campus  
Nobe

Date:- 20/5/19 .

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Vilas Gaikwad Working in CSE Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

V. Gaikwad  
Applicant Signature

*Sanctioned & Resubmitted to Account*



NCH

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



LM 126520

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**KHARAT JYOTI S.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



  
EXECUTIVE SECRETARY

Date:- 10/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am J.S. Kharat Working in CSE Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	—
3	Accommodation	—
4	Local conveyance	—
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

J.S. Kharat  
Applicant Signature

*Sactioned & Forwarded to Account*



R.K.W.

Director  
JSPM Narhe Technical Camp...  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campus

Campus Name: Narhe

## PAYMENT VOUCHER

Rs. 3540

Date 10.15.2019  
No

Pay Mr / Mrs Prof J. S. Kharat

a sum of Rs Three thousand five hundred forty  
being ISTE member

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank -

Branch -

Cheque No - Date -

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# PHOTONICS 2018

The International Conference on Fiber Optics and Photonics

12th - 15th December 2018

Indian Institute of Technology Delhi, New Delhi

*Certificate*

This is to certify that

**Dipika Pradhan**

has presented a paper in **Photonics 2018**,  
organized by Indian Institute of Technology Delhi on **December 12-15, 2018**

**Anurag Sharma**  
Conference Chair

Date:- 25/12/2018

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dipika Pradhan Working in E & TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Delhi

for attend Workshop/FDP/Conference photonics 2018 - IIT Delhi

from Dt. 12/12/2018 to 15/12/2018 Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3,000
2	Travelling Allowance	2,500
3	Extra Expense	2,500
Total		8,000/-


Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature



*Sanctioned  
process for  
reimbursement*

  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Date 30/12/2018

No. :

Rs. 8000

Pay Mr. / Mrs. Dipika Padhan

a sum of Rs Eight thousand only

being Photonics 2018 - IIT Delhi

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on Cash

Rs 8000

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

[Signature]  
Receiver's Signature



# Indian Society for Technical Education

IIT (D) CAMPUS, Katwaria Sarai  
Shaheed Jeet Singh Marg, New Delhi-110016  
Ph. : 26963431, 26513542, 26514234



**Name: NEETA RAJEEV KADAM**

**M. No.: LM 126521**

**Year: 2019**

Executive Secretary

## LIFE MEMBERSHIP CARD

Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Neeta kadam Working in TE&TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Neeta Kadam

Applicant Signature

*Sanctioned & forwarded to Account*



MCH

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411011



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, Narhe Technical Campus

Campus Name : NTC

## PAYMENT VOUCHER

Date : 10 / 5 / 2019

No. :

Rs. 3540

Pay Mr. / Mrs. Neeta Kadam

a sum of Rs. three thousand five hundred forty

being ISTE membership

and debit on \_\_\_\_\_ account.

Received the sum of

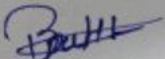
Paid by cash / cheque on Cash

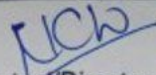
Rs. 3540

Bank \_\_\_\_\_

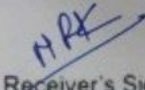
Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

  
Receiver's Signature



LM 1265

FOUNDED 1968

# THE INDIAN SOCIETY FOR TECHNICAL EDUCATION

*By approval of the Executive Council, has admitted*

**KALYANI PRAVIN WAGH**

**LIFE MEMBER**

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019



EXECUTIVE SECRETARY

Date:- 20/5/19

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Kalyani Wagh Working in ExtC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

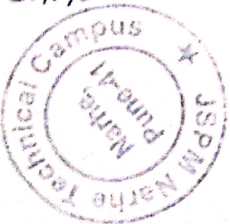
S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned & Forwarded to Account*



*NCW*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 412205



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, Narhe Technical Campus.

Campus Name : NTC.

## PAYMENT VOUCHER

Date : 10 / 5 / 2019

No :

Rs. 3540

Pay Mr. / Mrs. K.P. Wagh

a sum of Rs three thousand five hundred forty.

being ISTE Membership

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 3540

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

[Signature]  
Receiver's Signature



LM 126522

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**PATIL VIDYA SUBHASH**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Waidj*  
EXECUTIVE SECRETARY



Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Vidya Patil Working in E&TC Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	—
3	Accommodation	—
4	Local conveyance	—
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

V. Patil  
Applicant Signature

*Sanctioned & Forwarded to Account*



NCP  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, Nathe Technical Campus

Campus Name : NTC

## PAYMENT VOUCHER

Rs. 3540

Date : 10/5/2019

No. :

Pay Mr. / Mrs. Vidya Patil

a sum of Rs. three thousand five hundred forty

being TSFE membership

and debit on \_\_\_\_\_ account

Received the sum of

Paid by cash / cheque on cash

Rs. 3540

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Nathe Technical Campus  
Nathe, Pune - 411041

[Signature]  
Receiver's Signature



LM 126515

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**AMBARE SANTOSH SHIVRAM**

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

**2019**



*Waidy*  
EXECUTIVE SECRETARY

Date:- 19/12/20

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am *S.S. Ambare* Working in *FE* Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference *ISTE*

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

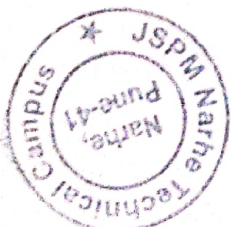
S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	—
3	Accommodation	—
4	Local conveyance	—
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

*Ambare*  
Applicant Signature

*Sanctioned & Forwarded to Account*



*RCD*  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411011



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Date 16/12/2020  
No \_\_\_\_\_

Rs. 35401-

Pay Mr. / Mrs. prof. S.S. Ambare

a sum of Rs. three thousand five hundred only

being ISTE 2019

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs 35401 -

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



LM 126516

**FOUNDED 1968**

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**NAGNATH M. GAIKWAD**

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

**2019**



*N. GaiKWAD*  
EXECUTIVE SECRETARY

Date:-16/12/20

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Nagnath Gaikwad Working in \_\_\_\_\_ Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	—
3	Accommodation	—
4	Local conveyance	—
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Nagnath Gaikwad

Applicant Signature



NAG  
Director  
JSPM Narhe Technical Campus  
Marhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Date : 16/12/20  
No

Rs. 35401-

Pay Mr. / Mrs. prof. N.M. Baikwad

a sum of Rs. three thousand five hundred forty

being ISTE 2019

and debit on \_\_\_\_\_ account.

Paid by cash / cheque on \_\_\_\_\_

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Received the sum of

Rs 35401-

  
Accountant

  
Principal/Director  
Director

  
Receiver's Signature

**JSPM Narhe Technical Campus**  
Narhe, Pune - 412014





LM 126500

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**SUDARSHAN D. KORE**

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019



*Wadga*  
EXECUTIVE SECRETARY

Date:- 20/5/19

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Sudarshan Kore Working in \_\_\_\_\_ Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely



Applicant Signature

*Sanctioned & Reversed to Account*



*NCH*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Date 16/12/2020  
No

Rs. 35401-

Pay Mr. / Mrs. Prof. C.D. Kore

a sum of Rs three thousand five hundred forty only

being FSTE 2019

and debit on \_\_\_\_\_ account

Paid by cash / cheque on \_\_\_\_\_

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
Director

Received the sum of  
Rs 35401-

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

# Dynamic Analysis and Experimental Investigation for Vibration Response of Suspension System of Indian Railway Vehicle

M. A. Kumbhalkar<sup>1,\*</sup>, Dr. D. V. Bhope<sup>2</sup>, Dr. A. V. Vanalkar<sup>3</sup>, P. P. Chaoji<sup>4</sup>

<sup>1,\*</sup>Department of Mechanical Engineering, JSPM Narhe Technical Campus, Pune, Maharashtra, India

<sup>2</sup>Department of Mechanical Engineering, Rajiv Gandhi College of Engineering, Research & Technology, Chandrapur, Maharashtra, India

<sup>3</sup>Department of Mechanical Engineering, KDK College of Engineering, Nagpur, Maharashtra, India

<sup>4</sup>Assistant Chemist and Metallurgist, Electric Locomotive Workshop, Central Railway, Bhusawal, Maharashtra, India

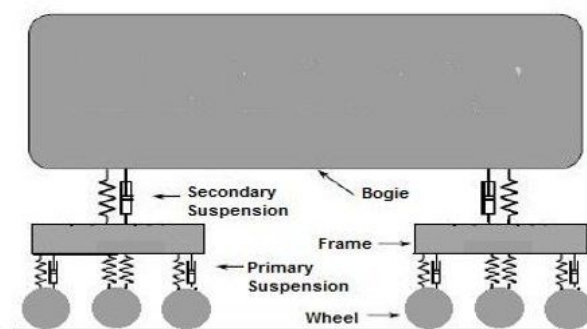
**ABSTRACT:** A vibration analysis of suspension of rail vehicle has to be performed which reflects both the varying load and response. A rail vehicle experiences lateral and vertical effect in very high response due to track imperfection, tractive effort, braking effort, curving and tracking. The differential equation for vibration analysis gives the time dependent response in the superstructure by including damping forces and inertial forces in the equation and each node is subjected to a sinusoidal function of the peak amplitude for that node. This paper represents the vibration response of rail vehicle having primary and secondary suspension with vertical, lateral and longitudinal damping. At first, the complex structure of dynamics of rail vehicle is to simplify in two mass damper suspension models to solve complex differential equation to find its natural frequency and amplitude. The aim is to check dynamic sinusoidal variations for the failure response of primary suspension spring by finding the natural frequency of model and excitation frequency of rail. The vibration response of two mass suspension systems with base excitation is obtained analytically using differential equation which gives peak amplitude by steady state solution. The mathematical model for increasing complexity i.e. for lateral and roll dynamics has also been developed and vibration analyzer is used to find dynamic behavior of rail vehicle in running condition at an average speed of 80-100 km/hr for number of instances during smooth track, curving and tracking.

**KEYWORDS:** Spring mass damper system, vibration analyzer, rail vehicle, dynamic analysis, modal & harmonic analysis.

## I. INTRODUCTION

Mechanical vibration is the study of oscillatory motions of a dynamic system which is a repeated motion with equal interval of time. Free vibrations are oscillations about a system equilibrium position that occurs in the absence of an external excitation force [1]. A rail vehicle is the dynamic multibody system which has the repeated oscillation of its suspension system due to unevenness of track condition or due to fluctuations of load. The dynamic behavior of a railroad vehicle also depends on the load and the mechanical systems, such as springs, dampers, etc., which interact with the wheels, the vehicle body and bogies. A Rail vehicle has primary and secondary suspension system mounted between bogie and wheelbase. The wheelbase has the primary suspension spring with inclined damper at end axle spring and concentric inner and outer spring assembly at middle axle. The body has secondary suspension system mounted between frame and bogie with vertical, lateral and longitudinal damping. Figure 1 shows the primary and secondary suspension system of dynamic multibody railroad vehicle.

The dynamics of the railway vehicle represent a balance between the forces acting between the wheel and the rail, the inertia forces and the forces exerted by the suspension and articulation. In a complete model of the dynamics of a railway vehicle, the vehicle is considered to be assembled from wheel sets, car bodies and intermediate structures which are flexible, and which are connected by components such as springs and dampers. Similarly, the vehicle is considered to run on a track which has a complex structure with elastic and dissipative properties. An objective of the study of railway vehicle dynamics is to develop analytical or numerical models describing the mechanics of various phenomena by the simplest model possible. These can be used to explore suspension and vehicle concepts and to develop a basis for physical understanding and insight [1, 2].



**Figure 1:** Rail vehicle three wheel engine with primary and secondary suspension system

Primary and secondary suspension is responsible for performance of isolation and absorption of shock loads and vibration and smooth control over movement between the car body and bogie. Springs permit free movement in all directions but lateral buffers and dampers restrict the amount and rate of lateral movement. Vertical dampers and rebound limit chains restrict the amount and rate of the vertical rebound of the locomotive car body. Pitch rate of car body is controlled by yaw (longitudinal) dampers.

Date:- 5/4/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. M.A. Kumbhalkar Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from 13/3/2019 to & fro 18/3/2019

to attend Workshop/FDP/Conference eTime 2019 KDK College Nagpur (International conf.) from Dt. 15 to 16/3/2019. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3500
2	Travelling Allowance	3000
3	Accommodation	-
4	Local conveyance	-
Total		6500

Thanking you for the same. Kindly do the needfull.

Yours sincerely

*Sanctioned forward to account for Reimburse -*  
*f A 22*

Applicant Signature



Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411011



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe Technical Campus

## PAYMENT VOUCHER

Rs. 6500

Date: 10/4/2019  
No. :

Pay Mr. / Mrs. M. A. Kremhalkar

a sum of Rs. Six thousand five hundred

being International conf. & expo paper - "Dynamic analysis and experimental investigation" IITDK college Nagpur

and debit on \_\_\_\_\_ account.  
Received the sum of Rs. 6500 15-10-2019

Paid by cash / cheque on cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Director  
Principal  
JSPM Narhe Technical Campus  
Narhe, Pune - 441104

[Signature]  
Receiver's Signature



LM 126512

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**KUMBHALAKR MANOJ A.**

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019



*Wadiz*  
EXECUTIVE SECRETARY

Date:- 20/5/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Manoj Kumbhalkar Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference JSTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Applicant Signature

*Sanctioned & Reversed to Account*



*RICH*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : TSPM Norhe Technical Campus  
Campus Name : Norhe

## PAYMENT VOUCHER

Rs. 3540/-

Date : 18/06/2019

Pay Mr. / Mrs. Prof. M.A. Kumbhalkar,

No. :

a sum of Rs. Three thousand five Hundred & forty only.  
being The Indian Society for Technical Education,

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on Cash

Rs. 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director

[Signature]  
Receiver's Signature

JSPM Norhe Technical Campus  
Norhe, Dist. - 411 204



LM 126513

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**PRASHANT BHARAT MAITREYA**

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019



*Waidj*  
EXECUTIVE SECRETARY

Date:- 18/5/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Prashant Maitheya Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

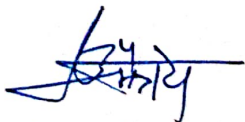
to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540.

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned & Rewarded to Account*



*NCH*  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : ISPM Narte Technical Campus  
Campus Name : Narte

## PAYMENT VOUCHER

Rs. 3540/-

Date 18/05/2019

Pay Mr. / Mrs. Mr. Prashant S. Maibaya

a sum of Rs Three thousand five hundred & forty only  
being ITE membership fees

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director

  
Receiver's Signature

ISPM Narte Technical Campus  
Narte, Pune - 411011



**G.H. RAISONI ACADEMY OF ENGINEERING AND TECHNOLOGY NAGPUR**  
(NAAC Accredited)

**Mechanical Engineering Department in association with Solar Energy  
Society of India & SunDip Solar.**

**Organize**

**Faculty Development Program**

**On**

**“Design of Solar Photovoltaic System”**

**Certificate**

This is to certify that Mr. MR. SACHIN B. PAWAR \_\_\_\_\_ of  
GHRCE, NAGPUR \_\_\_\_\_ has attended **Faculty Development Program on**  
**Design of Solar Photovoltaic System** during 26<sup>th</sup> to 30<sup>th</sup> November, 2018 and  
scored A<sup>+</sup> grade.

**Dr. Achal S. Shahare**  
Convener and HoD

**Varsha Sonaskar**  
Director, SunDip Solar

**Dr. Vivek Kapur**  
Principal, GHRAET, Nagpur



**Engineering**

**Management**

**Law**

**Schools**

**Other Courses**

■ NAGPUR ■ PUNE ■ JALGAON ■ AMRAVATI ■ AHMEDNAGAR ■ CHHINDWARA



Date:- 09/12/2018

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Mr. S.B. Pawar Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference FDP on Design of solar photovoltaic system, from Dt. 25/11/18 to 30/11/2018. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2500/-
3	Extra Expense	1600/-
Total		5600/-.

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature



*(action) process for me.*

  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Narhe Technical Campy

Campus Name: NTC

## PAYMENT VOUCHER

Rs. 5600/-

Date: 18/12/2018

No.:

Pay Mr. / Mrs. S. B. Pawar

a sum of Rs. Five thousand six hundred.

being EDP on Design of Solar photovoltaic system.

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs. 5600/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director

[Signature]  
Receiver's Signature

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



LM 126514

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**SAGAR KADU P.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY



Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Sagar Kadu Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

SJK

Applicant Signature

*Sanctioned & Reversed to Account*



[Signature]  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narte Technical Campus.  
Campus Name : Narte

## PAYMENT VOUCHER

Rs. 3540.

Date : 18/05/2019

No. :

Pay Mr. / Mrs. Prof. S.P. Kada.

a sum of Rs. Three thousand five Hundred and Forty only.  
being ISTE membership fee. (Life member)

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash.

Rs. 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director  
Director

  
Receiver's Signature

JSPM Narte Technical Campus  
Narte, Pune, 412004



LM 126515

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**Dr.GAWANDE JAGANNATH S.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY

Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Gawarde Jagannath Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

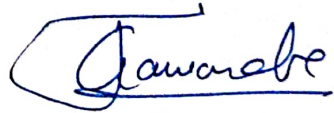
to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature

*Sanctioned & Forwarded to Account*



*NCH*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

I / We shall  
the BCUD i  
inate the



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 3540/-

Date : 18/05/2019

Pay Mr. / Mrs. Prof. J. S. Gaware

No. :

a sum of Rs Three thousand five Hundred and Forty  
being ISTE life member

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant

Principal/Director

Receiver's Signature


**Director**  
**JSPM Narhe Technical Campus**  
**Narhe, Pune - 411041**



**G.H. RAISONI ACADEMY OF ENGINEERING AND TECHNOLOGY NAGPUR**  
(NAAC Accredited)  
**Mechanical Engineering Department in association with Solar Energy**  
**Society of India & SunDip Solar.**  
**Organize**  
**Faculty Development Program**  
**On**  
**“Design of Solar Photovoltaic System”**

**Certificate**

This is to certify that Mr. MR. SATISH B.SATPAL \_\_\_\_\_ of  
GHRCE, NAGPUR \_\_\_\_\_ has attended **Faculty Development Program on**  
**Design of Solar Photovoltaic System** during 26<sup>th</sup> to 30<sup>th</sup> November, 2018 and  
scored **A<sup>+</sup>** grade.

  
**Dr. Achal S. Shahare**  
Convener and HoD

  
**Varsha Sonaskar**  
Director, SunDip Solar

  
**Dr. Vivek Kapur**  
Principal, GHRAET, Nagpur

**Engineering**

**Management**

**Law**

**Schools**

**Other Courses**

■ NAGPUR ■ PUNE ■ JALGAON ■ AMRAVATI ■ AHMEDNAGAR ■ CHINDWARA



Date:- 09/12/2018

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. Satish Satpal Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference FDP on Design of solar photovoltaic system from Dt. 25/11/18 to 30/11/18. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500/-
2	Travelling Allowance	2500/-
3	Extra Expense	1600/-
	Total	5600/-

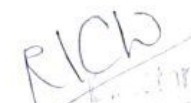
Thanking you for the same. Kindly do the needfull.

Yours sincerely

  
Applicant Signature



Sanctioned process for reimbursement for

  
RICH  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Nabe Technical Campus  
Campus Name: NTC

## PAYMENT VOUCHER

Rs. 5600/-

Date 18/12/2018

No

Pay Mr / Mrs Satish Satpal

a sum of Rs Five thousand Six hundred

being FDP on Design of Solar Photovoltaic System @ Nagpur

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs 5600/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date: 18/12/2018

B. Pradip  
Accountant

[Signature]  
Principal/Director  
JSPM Nabe Technical Campus  
Nagpur, Maharashtra

[Signature]  
Receiver's Signature





LM 126517

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**DHUMAL GANESH S.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Waidj*  
EXECUTIVE SECRETARY

Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Ganesh Dhumal Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3590
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3590

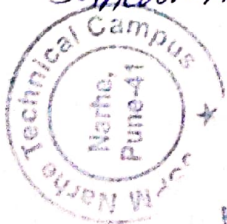
Thanking you for the same. Kindly do the needfull.

Yours sincerely



Applicant Signature

*Sanctioned & Forwarded to Account*



*NCH*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

us.

The ab  
governm

(d)



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus

Campus Name : Narhe

## PAYMENT VOUCHER

Date : 18 / 05 / 2019

No. :

Rs. 3540/-

Pay Mr. / Mrs. prof. G.S. Dhurnal

a sum of Rs Three Thousand Five Hundred & forty only  
being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

Accountant

Principal/Director

Receiver's Signature

**Director**  
**JSPM Narhe Technical Campus**  
**Narhe, Pune - 411041**



LM 126518

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**KALE SANDEEP S.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY

Date:- 20/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Kale Sandeep Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

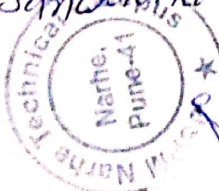
S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Kale  
Applicant Signature

*Sanctioned & Forwarded to Account*

  
*RCD*  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Naehe Technical campus  
Campus Name : Naehe

## PAYMENT VOUCHER

Rs. 3540/-

Date : 18/05/2019

No. :

Pay Mr. / Mrs. prof. S.S. Kale

a sum of Rs. Three thousand Five Hundred & Forty only —

being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash


Rs. 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Director  
Principal/Director  
JSPM Naehe Technical Campus  
Naehe, Pune - 411041

  
Receiver's Signature



LM 126519

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**DHAWARE PRASHANT A.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY

Date:- 18/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dhavare Prashant Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Prashant

Applicant Signature

Sanctioned & Forwarded to Account  
LCW

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



b. c.



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute: JSPM Naehe Technical Campus  
Campus Name: Naehe

## PAYMENT VOUCHER

Rs. 3540/-

Date: 18/05/2019  
No: \_\_\_\_\_

Pay Mr. / Mrs. prof. P.A. Dhawase

a sum of Rs Three Thousand Five Hundred & forty only  
being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of


Paid by cash / cheque on cash

Rs 3540/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

  
Accountant

  
Director  
Principal/Director  
JSPM Naehe Technical Campus  
Naehe, Pune 411041

  
Receiver's Signature



LM 126509

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**DEOKAR MADHURI SUHAS**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY

Date:- 18/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Deekha Madhuri Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference ISTF

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

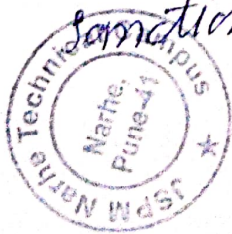
S.no	Description	Amount
1	Registration Fees	3570
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3570

Thanking you for the same. Kindly do the needfull.

Yours sincerely

msd

Applicant Signature



*Sanctioned & Reversed to Account*

*NCH*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus

Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 35401-

Date : 18/05/2019

No. :

Pay Mr. / Mrs. prof. M. S. Deokar

a sum of Rs. Three Thousand Five Hundred & forty only -

being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 35401-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041

  
Receiver's Signature



LM 126520

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**SAWADADKAR GAJANAN S.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Wadgi*  
EXECUTIVE SECRETARY

Date:- 18/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Sawadkar Gajanan Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference JSTF

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3540
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3540

Thanking you for the same. Kindly do the needfull.

Yours sincerely

G. Sawadkar

Applicant Signature

*Sactioned & Perwarded to Account*  
R. Ch

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : ISPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 35401-

Date 18/05/2019

No

Pay Mr. / Mrs. prof. G.S. Sawdakar

a sum of Rs Three Thousand Five Hundred & forty only -  
being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs 35401-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
**ISPM Narhe Technical Campus**  
Narhe. Pina - 411011

[Signature]  
Receiver's Signature



**G.H. RAISONI ACADEMY OF ENGINEERING AND TECHNOLOGY NAGPUR**  
(NAAC Accredited)


**Mechanical Engineering Department in association with Solar Energy  
Society of India & SunDip Solar.**

**Organize  
Faculty Development Program  
On**

**“Design of Solar Photovoltaic System”**

**Certificate**

*This is to certify that Mr. KISHOR S RAMBHAD of  
GHRCE, NAGPUR has attended **Faculty Development Program on  
Design of Solar Photovoltaic System** during 26<sup>th</sup> to 30<sup>th</sup> November, 2018 and  
scored **A<sup>+</sup>** grade.*

  
**Dr. Achal S. Shahare**  
Convener and HoD

  
**Varsha Sonaskar**  
Director, SunDip Solar

  
**Dr. Vivek Kapur**  
Principal, GHRAET, Nagpur



**Engineering**

**Management**

**Law**

**Schools**

**Other Courses**

■ NAGPUR ■ PUNE ■ JALGAON ■ AMRAVATI ■ AHMEDNAGAR ■ CHHINDWARA



Date:- 25/08/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Dr. K.S. Rambhad Working in Mech. Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & fro Nagpur

for attend Workshop/FDP/Conference

from Dt. 24/08/19 25/08/19 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1,500/-
2	Travelling Allowance	3,000/-
3	Extra Expense	500/-
	Total	5,000/-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

K.S. Rambhad  
Applicant Signature

Sanctioned

process for remb.



RICH  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM, NTC

Campus Name : Narhe technical campus

## PAYMENT VOUCHER

Date : 30/8/2019

No :

Rs. 5500

Pay Mr. / Mrs. Dr. K. S. Rambhad

a sum of Rs. five thousand five hundred

being International conference - paper - an experimental investigation of solid associated solid desiccant dehumidifier 2019

and debit on \_\_\_\_\_ account. Received the sum of

Paid by cash / cheque on cash

Rs 5500

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

[Signature]  
Accountant

[Signature]  
Principal/Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411004

[Signature]  
Receiver's Signature



LM 126521

FOUNDED 1968

# ***THE INDIAN SOCIETY FOR TECHNICAL EDUCATION***

*By approval of the Executive Council, has admitted*

**HOMBAL PORNIMA M.**

---

***LIFE MEMBER***

*of the society, an organisation for promoting  
the quality and standards  
in technical education*

2019

---



*Waidj*  
EXECUTIVE SECRETARY

Date:- 18/5/2019

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Hombal Parima Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference ISTE

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	3520
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		3520

Thanking you for the same. Kindly do the needfull.

Yours sincerely

Hombal

Applicant Signature

*Sanctioned & Resawarded to Account*  
*RICK*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus

Campus Name : Narhe

## PAYMENT VOUCHER

Rs. 35401-

Date : 18/05/2019

No. :

Pay Mr. / Mrs. prof. P. M. Hombal

a sum of Rs. Three Thousand Five Hundred and Fifty only  
being ISTE

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on Cash

Rs. 35401-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : 18/05

[Signature]  
Accountant

Principal/Director	Assistant	Professor	(Full Time)
<u>[Signature]</u> Principal/Director	<u>[Signature]</u> Assistant	<u>[Signature]</u> Professor	

JSPM Narhe Technical Campus  
Narhe, Pune - 411041


Receiver's Signature



**G.H. RAISONI ACADEMY OF ENGINEERING AND TECHNOLOGY NAGPUR**  
(NAAC Accredited)  
**Mechanical Engineering Department in association with Solar Energy**  
**Society of India & SunDip Solar.**  
**Organize**  
**Faculty Development Program**  
**On**  
**“Design of Solar Photovoltaic System”**

**Certificate**

This is to certify that Mr. Ms.ABOLI D.HALWE \_\_\_\_\_ of  
GHRCE, NAGPUR has attended **Faculty Development Program on**  
**Design of Solar Photovoltaic System** during 26<sup>th</sup> to 30<sup>th</sup> November, 2018 and  
scored **A<sup>+</sup>** grade.

  
Dr. Achal S. Shahare  
Convener and HoD

  
Varsha Sonaskar  
Director, SunDip Solar

  
Dr. Vivek Kapur  
Principal, GHRAET, Nagpur

Engineering

Management

Law

Schools

Other Courses

■ NAGPUR ■ PUNE ■ JALGAON ■ AMRAVATI ■ AHMEDNAGAR ■ CHHINDWARA



Date:- 10/12/2018

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Ms. A. D. Halwe Working in Mechanical Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from Pune to & from Nagpur.

for attend Workshop/FDP/Conference FDP on Design of Solar photovoltaic system  
from Dt. 25/11/18 to 30/11/18 . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	1500 /-
2	Travelling Allowance	2500 /-
3	Extra Expense	1600 /-
	Total	5600 /-

Thanking you for the same. Kindly do the needfull.

Yours sincerely

AD Halwe

Applicant Signature



Sanctioned  
proc for

reimb.

R/C/W  
Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narte Technical Campus  
Campus Name : NTC

## PAYMENT VOUCHER

Rs. 5600/-

Date: 18/12/2028  
No

Pay Mr / Mrs A.D. Halwe

a sum of Rs Five thousand Six hundred only

being FDP on Design of Solar Photovoltaic System

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on \_\_\_\_\_

Rs 5600/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No \_\_\_\_\_ Date : \_\_\_\_\_

B. Pradi  
Accountant

R. D. D.  
Principal/Director

A. Halwe  
Receiver's Signature

JSPM Narte Technical Campus  
Narte, Dist. Solapur



069366



The Institution of Engineers (India)

MEMBERSHIP  
CERTIFICATE

This Certificate of  
Associate Member is Granted to

DR. JAGANNATH S. GAWANDE

on the Seventeenth day of  
March TWO ZERO TWO TWO

In witness where of the said Institution has caused  
its Common Seal to be affixed this Seventeenth  
day of March TWO ZERO TWO TWO



AM3025779

Member of Council

Secretary and Director General

Date:- 22/11/19

To,  
The Director,  
JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am J.S. Gawande Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference IFI

from Dt. \_\_\_\_\_ to \_\_\_\_\_. Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	2094
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		2094

Thanking you for the same. Kindly do the needfull.

Yours sincerely



Applicant Signature

*Sanctioned & Perwarded to Account*



*R. Ch*

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041



## JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus

Campus Name : Narhe

### PAYMENT VOUCHER

Rs. 20941/-

Date : 22/03/2019 -

No. :

Pay Mr. / Mrs. Dr. J.S. Gawande

a sum of Rs. Two Thousand & Ninety - Four only -

being IEI

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 20941/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

J.S. Gawande

Receiver's Signature

[Signature]  
Accountant

[Signature]  
Principal/Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041

069245



The Institution of Engineers (India)

MEMBERSHIP  
CERTIFICATE

This Certificate of  
Associate Member is Granted to

**RASHI A.YADAV**

on the Seventeenth day of  
March TWO ZERO TWO TWO

In witness where of the said Institution has caused  
its Common Seal to be affixed this Seventeenth  
day of March TWO ZERO TWO TWO



AM3024789

Member of Council

Secretary and Director General

Date:- 22/3/19

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am R.A. Yadav Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro \_\_\_\_\_

to attend Workshop/FDP/Conference IEI

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	2094
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		2094

Thanking you for the same. Kindly do the needfull.

Yours sincerely



Applicant Signature

*Sanctioned & Reversed to Account*



*R.A. Yadav*

Director

JSPM Narhe Technical Campus  
Narhe, Pune - 411041



# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Narhe Technical Campus  
Campus Name : Narhe

## PAYMENT VOUCHER

Date 22 / 03 / 2019

No. :

Rs. 20941/-

Pay Mr. / Mrs. prof. R. A. Yadav

a sum of Rs TWO Thousand & Ninety - four only -

being IEI

and debit on \_\_\_\_\_ account.

Paid by cash / cheque on cash

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date: \_\_\_\_\_

Received the sum of

Rs. 20941/-

  
Accountant

  
Principal/Director  
**JSPM Narhe Technical Campus**  
Narhe, Pune - 411041

  
Receiver's Signature

069255



The Institution of Engineers (India)

MEMBERSHIP  
CERTIFICATE

This Certificate of  
Associate Member is Granted to

**BHARAT B. AHER**

on the Seventeenth day of  
March TWO ZERO TWO TWO

In witness where of the said Institution has caused  
its Common Seal to be affixed this Seventeenth  
day of March TWO ZERO TWO TWO



AM3025872

Member of Council

Secretary and Director General

Date:- 22/3/19.

To,

The Director,

JSPM Narhe Technical Campus.

**Subject:** Request For Reimbursement of Travel Expenses, Registration charges and Accommodation.

Respected Sir,

I am Bharat Aher Working in Mech Department

Writing this letter to request reimbursement for the applicable expenses incurred due to my round-trip travel from \_\_\_\_\_ to & fro

to attend Workshop/FDP/Conference IEE

from Dt. \_\_\_\_\_ to \_\_\_\_\_ . Please find the Attached for total expense.

S.no	Description	Amount
1	Registration Fees	2094
2	Travelling Allowance	-
3	Accommodation	-
4	Local conveyance	-
Total		2094

Thanking you for the same. Kindly do the needfull.

Yours sincerely

B. Aher

Applicant Signature

*Sanctioned & Reimbursed to Account*



NCH

Director  
JSPM Narhe Technical Campus  
Narhe, Pune - 411041





# JAYAWANT SHIKSHAN PRASARAK MANDAL'S

Name of the Institute : JSPM Naehe Technical Campus

Campus Name : Naehe

## PAYMENT VOUCHER

Date : 22/03/2019

No. :

Rs. 2094

Pay Mr. / Mrs. Prof. B.B. Aher

a sum of Rs. TWO Thousand & Ninety - Four only —

being IEI

and debit on \_\_\_\_\_ account.

Received the sum of

Paid by cash / cheque on cash

Rs. 2094/-

Bank \_\_\_\_\_

Branch \_\_\_\_\_

Cheque No. \_\_\_\_\_ Date : \_\_\_\_\_

  
Accountant

  
Principal/Director

  
Receiver's Signature

JSPM Naehe Technical Campus  
Naehe, Pune - 411011