



S J P N Trust's

**Hirasugar Institute of Technology, Nidasoshi**

Approved by AICTE, New Delhi, Permanently Affiliated to VTU, Belagavi

Recognized under 2(f) &amp; 12B of UGC Act, 1956

Accredited at 'A' Grade by NAAC &amp; Programmes Accredited by NBA: CSE &amp; ECE

Mech. Engg. Dept.

AIMSS

Activities

AY:2022-23

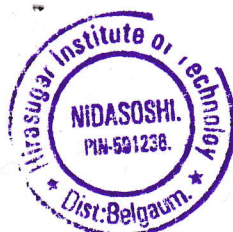
**Activity Brochure****Activity: A collaborative hands-on STTP on "Design and Analysis using MSC Apex Software & Multi body Dynamics (Motion Simulation)"**

|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date-Time& Venue:                                                           | 17 <sup>th</sup> – 19 <sup>th</sup> November 2022<br>@ NBA Seminar Hall and Research/CAED Lab                                                                                                                                                                                                                                                                                                                                                                                                              |
| Resource Persons:                                                           | From ALTEM Technologies Pvt. Ltd, Bengaluru and VTU Belagavi                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Participants:                                                               | ➤ VII Semesters Mechanical Students<br>➤ Mechanical Staff Members                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Course Coordinator                                                          | Prof.D.N.Inamdar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objectives:                                                                 | <ol style="list-style-type: none"> <li>1. To understand modelling, design and simulation software</li> <li>2. To design and analysis of systems and processes using MSC-Apex and ADAM Software tools.</li> <li>3. To have hands-on experience on Multi body dynamics softwares using motion simulation.</li> <li>4. To model, design and analysis of complex and relevant industrial engineering problems of national interest</li> <li>5. To promote Activity Based and Participative Learning</li> </ol> |
| Program Outcomes:<br>(POs)-Attainment<br>Weight age<br>(Low as1-High as 3): | PO1: Engineering knowledge-3<br>PO2:Problem Analysis-2<br>PO3: Design/Development of Solutions-1<br>PO4:Modern Tool Usage-3<br>PO8:Ethics -1<br>PO10:Communication-2<br>PO12:Life long Learning-3<br>PSO1-3, PSO2-2 & PSO3-2                                                                                                                                                                                                                                                                               |

Mr.Kiran Dangi  
VIISem, Secretary-AIMSS

Prof.D.N.Jamadar&Prof.M.M.Shivasimpi  
AIMSS Coordinators

Dr.S.N.Topannavar  
**HOD**  
**Mechanical Engg.**  
**HIT, Nidasoshi**



Dr.S.C.Karnate  
**PRINCIPAL**  
**Hirasugar Institute of Technology**  
**NIDASOSHI-591236**

S J P N Trust's

## Hirasugar Institute of Technology, Nidasoshi

Inculcating Values, Promoting Prosperity

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### STTP on

**"Design and Analysis using MSC Apex Software & Multi Body Dynamics (Motion Simulation)"**

(In Collaboration with Altem Pvt. Ltd. Bengaluru & VTU, Belagavi)

### Training Schedule

Time: 8.00 am to 6.00 pm

Venue: NBA Seminar Hall & Research Centre of ME, Dept.

| SL NO                                | Date                                                        | Software's                           | Sessions                             | Topics                                                                     | Resource Persons                      |
|--------------------------------------|-------------------------------------------------------------|--------------------------------------|--------------------------------------|----------------------------------------------------------------------------|---------------------------------------|
| 1                                    | 17-11-2022                                                  | Apex<br>(Simulationand<br>modelling) | Session 1<br><br>(8.00 am-11.00 am)  | 1.Introduction to VTU - Visaiaizing Softwares<br>and capabilities          | Mr. Manohar S.N. &<br>Mr.Vivek Diwan. |
|                                      |                                                             |                                      |                                      | 2.Introduction to Apex graphical user interface<br>and tools and commands. |                                       |
|                                      |                                                             |                                      |                                      | 3. Tea Break                                                               |                                       |
|                                      |                                                             |                                      | Session 2<br><br>(11.15 am- 1.15 pm) | 4.Hands on workshop                                                        |                                       |
|                                      |                                                             |                                      |                                      | 5. Linear static analysis of shaft.                                        |                                       |
|                                      |                                                             |                                      |                                      | 6. Compound bar problems.                                                  |                                       |
|                                      |                                                             |                                      |                                      | 7. Buckling analysis of cylinder.                                          |                                       |
|                                      |                                                             |                                      | 8.Lunch Break                        |                                                                            |                                       |
|                                      |                                                             |                                      | Session 3<br><br>(2 pm- 3.30 pm)     | 9. Normal modal analysis.                                                  |                                       |
|                                      |                                                             |                                      |                                      | 10. Piston cylinder analysis.                                              |                                       |
| 11.Tea Break                         |                                                             |                                      |                                      |                                                                            |                                       |
| Session 4<br><br>(3.45 pm- 6.00 pm)  | 12. Beam problems and various cross sections.               |                                      |                                      |                                                                            |                                       |
|                                      | 13.Industrial workshop - car floor (Preprocessing<br>stage) |                                      |                                      |                                                                            |                                       |
| 2                                    | 18-11-2022                                                  | Adams (Multi -<br>Body<br>dynamics)  | Session 5<br><br>(8.00 am-11.00 am)  | 1.Introduction to software graphical user<br>Interface and capabilities.   | Mr. Manohar S.N. &<br>Mr.Vivek Diwan. |
|                                      |                                                             |                                      |                                      | 2.Hands on session on various tools commands<br>in Adams.                  |                                       |
|                                      |                                                             |                                      |                                      | 3. Tea Break                                                               |                                       |
|                                      |                                                             |                                      | Session 6<br><br>(11.15am- 1.15 pm)  | 4.Hands on workshop                                                        |                                       |
|                                      |                                                             |                                      |                                      | 5. Stone falling under gravity.                                            |                                       |
|                                      |                                                             |                                      |                                      | 6. Projectile motion.                                                      |                                       |
|                                      |                                                             |                                      | 7.Lunch Break                        |                                                                            |                                       |
|                                      |                                                             |                                      | Session 7<br><br>(2 pm- 3.30 pm)     | 8. Slider cranks mechanism.                                                |                                       |
|                                      |                                                             |                                      |                                      | 9. Toggle Mechanism.                                                       |                                       |
|                                      |                                                             |                                      |                                      | 10. Tea Break                                                              |                                       |
| Session 8<br><br>(3.45 pm- 6.00 pm)  | 11. Lift mechanism.                                         |                                      |                                      |                                                                            |                                       |
|                                      | 12. Hands on practice with solving numerical.               |                                      |                                      |                                                                            |                                       |
|                                      | 3                                                           | 19-11-2022                           | MARC and<br>patranand<br>Adams       | Session 9<br><br>(8.00 am-11.00 am)                                        | 1. Slotted lever mechanism.           |
| 2. Simple pendulum.                  |                                                             |                                      |                                      |                                                                            |                                       |
| 3. Tea Break                         |                                                             |                                      |                                      |                                                                            |                                       |
| Session 10<br><br>(11.15am- 1.15 pm) |                                                             |                                      |                                      | 4.Spring problem and Introduction to MSC - Skill<br>connect                |                                       |
|                                      |                                                             |                                      |                                      | 5. Cantilever beam using patran.                                           |                                       |
| 6.Lunch Break                        |                                                             |                                      |                                      |                                                                            |                                       |
| Session 11<br><br>(2 pm- 3.30 pm)    |                                                             |                                      |                                      | 7. Simple cube analysis using Marc.                                        |                                       |
|                                      |                                                             |                                      |                                      | 8. Impact analysis using Marc.                                             |                                       |
|                                      |                                                             |                                      |                                      | 9. Tea Break                                                               |                                       |
| Session 12<br><br>(3.45 pm- 6.00 pm) |                                                             |                                      |                                      | 10. Analysis of the Bars using Marc.                                       |                                       |
|                                      | 11. Hands on practice with solving numerical.               |                                      |                                      |                                                                            |                                       |
|                                      | 12. Hands on practice with solving numerical.               |                                      |                                      |                                                                            |                                       |

#### Training Coordinators

1. Mr. Manohar S N
2. Mr. Vivek Diwan

#### Course Coordinator

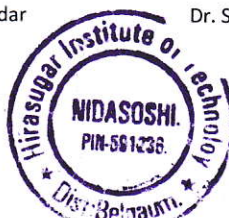
Prof. D.N. Inamdar

HOD

Dr. S. N. Topannavar

Principal

Dr. S.C. Kamate





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AIMSS

VTU-ALTEM-STTP

AY: 2022-23

A collaborative hands-on STTP on "Design and Analysis using MSC Apex Software & Multi body Dynamics (Motion Simulation)"

## Attendance Sheet

MED Staff Members

| R.No | Name of the Staff     | Designation | 17-11-2022 |           | 18-11-2022 |           | 19-11-2022 |           |
|------|-----------------------|-------------|------------|-----------|------------|-----------|------------|-----------|
|      |                       |             | Morning    | Afternoon | Morning    | Afternoon | Morning    | Afternoon |
| 1    | Dr. S. N. Topannavar  | Prof. & HOD | OD         | OD        | OD         | OD        | OD         | OD        |
| 2    | Dr. K. M. Akkoli      | Asso. Prof. | OD         | OD        | OD         | OD        | OD         | OD        |
| 3    | Dr. M M. Shivashimpi  | Asso. Prof. | OD         | OD        | OD         | OD        | OD         | OD        |
| 4    | Prof. D. N. Inamdar   | Asst.Prof.  | OD         | OD        | OD         | OD        | OD         | OD        |
| 5    | Prof. S. A. Goudadi   | Asst.Prof.  | OD         | OD        | OD         | OD        | OD         | OD        |
| 6    | Prof. M S Futane      | Asst.Prof.  | OD         | OD        | OD         | OD        | OD         | OD        |
| 7    | Prof. M. A. Hipparagi | Asst.Prof.  | OD         | OD        | OD         | OD        | OD         | OD        |
| 8    | Prof. G. M. Zulpi     | Asst.Prof.  | OD         | OD        | OD         | OD        | OD         | OD        |
| 1    | Sri. V G Badiger      | Foreman     | OD         | OD        | OD         | OD        | OD         | OD        |
| 2    | Sri. A B Sankeshwari  | Foreman     | OD         | OD        | OD         | OD        | OD         | OD        |

Prof.D.N.Inamdar  
Course Coordinator



Dr.S.N.Topannavar

HOD

Mechanical Engg.  
HIT, Nidasoshi



A collaborative hands-on STTP on “Design and Analysis using MSC Apex Software & Multi body Dynamics (Motion Simulation)”

## Attendance Sheet

| R.No | Student Name            | USN        | 17-11-2022        |                   | 18-11-2022        |                   | 19-11-2022        |                   |
|------|-------------------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|      |                         |            | Morning           | Afternoon         | Morning           | Afternoon         | Morning           | Afternoon         |
| 1.   | Aayesha M Sayyad        | 2HN18ME001 | <i>Ayesha</i>     | <i>Ayesha</i>     | <i>Ayesha</i>     | <i>Ayesha</i>     | <i>Ayesha</i>     | <i>Ayesha</i>     |
| 2.   | Rahul Mudalagi          | 2HN18ME028 | <i>R.M.M</i>      | <i>R.M.M</i>      | <i>R.M.M</i>      | <i>R.M.M</i>      | <i>R.M.M</i>      | <i>R.M.M</i>      |
| 3.   | Rakesh Gudasi           | 2HN18ME030 | <i>Rakesh</i>     | <i>Rakesh</i>     | <i>Rakesh</i>     | <i>Rakesh</i>     | <i>Rakesh</i>     | <i>Rakesh</i>     |
| 4.   | Sujeet Huddar           | 2HN18ME040 | <i>Sujeet</i>     | <i>Sujeet</i>     | <i>Sujeet</i>     | <i>Sujeet</i>     | <i>Sujeet</i>     | <i>Sujeet</i>     |
| 5.   | Vinod Sorannavar        | 2HN18ME046 | <i>Vinod</i>      | <i>Vinod</i>      | <i>Vinod</i>      | <i>Vinod</i>      | <i>Vinod</i>      | <i>Vinod</i>      |
| 6.   | Abhishek Patil          | 2HN19ME001 | <i>Abhishek</i>   | <i>Abhishek</i>   | <i>Abhishek</i>   | <i>Abhishek</i>   | <i>Abhishek</i>   | <i>Abhishek</i>   |
| 7.   | Akash Bagewadi          | 2HN19ME002 | <i>Akash</i>      | <i>Akash</i>      | <i>Akash</i>      | <i>Akash</i>      | <i>Akash</i>      | <i>Akash</i>      |
| 8.   | Archana Ramappa Gulli   | 2HN19ME003 | <i>Archana</i>    | <i>Archana</i>    | <i>Archana</i>    | <i>Archana</i>    | <i>Archana</i>    | <i>Archana</i>    |
| 9.   | Dhananjayakumar Magadam | 2HN19ME004 | <i>Dhananjay</i>  | <i>Dhananjay</i>  | <i>Dhananjay</i>  | <i>Dhananjay</i>  | <i>Dhananjay</i>  | <i>Dhananjay</i>  |
| 10.  | Kiran S Dhange          | 2HN19ME005 | <i>Kiran</i>      | <i>Kiran</i>      | <i>Kiran</i>      | <i>Kiran</i>      | <i>Kiran</i>      | <i>Kiran</i>      |
| 11.  | Mahadev Patrot          | 2HN19ME006 | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    |
| 12.  | Mahadev Rama Gulli      | 2HN19ME007 | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    | <i>Mahadev</i>    |
| 13.  | Prathamesh Nilaji       | 2HN19ME008 | <i>Prathamesh</i> | <i>Prathamesh</i> | <i>Prathamesh</i> | <i>Prathamesh</i> | <i>Prathamesh</i> | <i>Prathamesh</i> |

Prof.D.N.Inamdar  
Course Coordinator



*Dr.S.N.Topannavar*  
Dr.S.N.Topannavar  
HOD  
Mechanical Engg.  
HIT, Nidasoshi



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AIMSS

VTU-ALTEM-STTP

AY: 2022-23

| R.No | Student Name            | USN        | 17-11-2022        |                   | 18-11-2022        |                   | 19-11-2022        |                   |
|------|-------------------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|      |                         |            | Morning           | Afternoon         | Morning           | Afternoon         | Morning           | Afternoon         |
| 14   | Ramesh S Adin           | 2HN19ME009 | <i>Radin</i>      | <i>Radin</i>      | <i>Radin</i>      | <i>Radin</i>      | <i>Radin</i>      | <i>Radin</i>      |
| 15   | Shashidhar Gurav        | 2HN19ME010 | <i>Gurav</i>      | <i>Gurav</i>      | <i>Gurav</i>      | <i>Gurav</i>      | <i>Gurav</i>      | <i>Gurav</i>      |
| 16   | Suraj G. Maradi         | 2HN19ME011 | <i>Maradi</i>     | <i>Maradi</i>     | <i>Maradi</i>     | <i>Maradi</i>     | <i>Maradi</i>     | <i>Maradi</i>     |
| 17   | Aditya Suresh Patil     | 2HN20ME400 | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      |
| 18   | Aksy Magdum             | 2HN20ME401 | <i>Magdum</i>     | <i>Magdum</i>     | <i>Magdum</i>     | <i>Magdum</i>     | <i>Magdum</i>     | <i>Magdum</i>     |
| 19   | Rajkumar Khot           | 2HN20ME402 | <i>Khot</i>       | <i>Khot</i>       | <i>Khot</i>       | <i>Khot</i>       | <i>Khot</i>       | <i>Khot</i>       |
| 20   | Ramesh Raju Manjaragi   | 2HN20ME403 | <i>Manjaragi</i>  | <i>Manjaragi</i>  | <i>Manjaragi</i>  | <i>Manjaragi</i>  | <i>Manjaragi</i>  | <i>Manjaragi</i>  |
| 21   | Sandeep Sooji           | 2HN20ME404 | <i>Sooji</i>      | <i>Sooji</i>      | <i>Sooji</i>      | <i>Sooji</i>      | <i>Sooji</i>      | <i>Sooji</i>      |
| 22   | Satigouda B Patil       | 2HN20ME405 | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      | <i>Patil</i>      |
| 23   | Sourabha S Shinde       | 2HN20ME406 | <i>S. Shinde</i>  | <i>S. Shinde</i>  | <i>S. Shinde</i>  | <i>S. Shinde</i>  | <i>S. Shinde</i>  | <i>S. Shinde</i>  |
| 24   | Vinayak Badiger         | 2HN20ME407 | <i>Badiger</i>    | <i>Badiger</i>    | <i>Badiger</i>    | <i>Badiger</i>    | <i>Badiger</i>    | <i>Badiger</i>    |
| 25   | Virupaxayya Mathad      | 2HN20ME408 | <i>Mathad</i>     | <i>Mathad</i>     | <i>Mathad</i>     | <i>Mathad</i>     | <i>Mathad</i>     | <i>Mathad</i>     |
| 26   | Giridhar Ghatage        | 2HN15ME024 |                   |                   |                   |                   |                   |                   |
| 27   | Shivanand Dodagoudar    | 2HN16ME069 | <i>Dodagoudar</i> | <i>Dodagoudar</i> | <i>Dodagoudar</i> | <i>Dodagoudar</i> | <i>Dodagoudar</i> | <i>Dodagoudar</i> |
| 28   | Pawankumar A Shirahatti | 2HN18ME023 | <i>Shirahatti</i> | <i>Shirahatti</i> | <i>Shirahatti</i> | <i>Shirahatti</i> | <i>Shirahatti</i> | <i>Shirahatti</i> |

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Course Coordinator



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HIT, Nidasoshi



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## HIRASUGAR INSTITUTE OF TECHNOLOGY

NIDASOSHI- 591236 Tal. Hukkeri, Dist. Belagavi, Karnataka

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# MECHANICAL ENGINEERING DEPARTMENT

### *Certificate of Participation*

This is to certify that Prof./Mr./Miss. Shashidhar. Gurav.  
of 7<sup>th</sup> Semester Mech. Engg. has participated in A Collaborative Hands-on  
Short Term Training on "Design & Analysis Using MSC Apex Software & Multi Body  
Dynamics (Motion Simulations)" in collaboration with ALTEM Technology, Bengaluru  
& VTU Belagavi at HSIT, Nidasoshi From 17<sup>th</sup> To 19<sup>th</sup> November 2022.

  
Mr. Manohar S N  
ALTEM TECH

  
Prof. D. N. Inamdar  
Course Coordinator

  
Dr. S. N. Topannavar  
HOD, MED

  
Dr. S. C. Kamate  
PRINCIPAL



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Mech. Engg. Dept

Activities

Feedback

2022-23 (ODD)

### FEEDBACK on STTP

Title of the Activity: A collaborative hands-on STTP on "Design and Analysis using MSC Apex Software & Multi body Dynamics (Motion Simulation)"

| Gap No.: | Mapped POs            | POs Weightage | Mapped PSOs                                    | PSOs Weightage |
|----------|-----------------------|---------------|------------------------------------------------|----------------|
|          |                       |               |                                                |                |
| Date     | 17.11.2022-19.11.2022 | Venue         | Research Center<br>Mechanical Engg. Department |                |

Note: Solicit your response in numeric (10 points:Excellent-0 point: Not Good)

| S.No.        | Parameter                                                                                               | Numeric Response (0-10) |
|--------------|---------------------------------------------------------------------------------------------------------|-------------------------|
| 1            | The contents of the training on Analysis soft wares are helpful for the future carrier after graduation | 10                      |
| 2            | Analysis softwares learnt are helpful to analyze for complex mechanical systems                         | 10                      |
| 3            | Satisfaction of the trainers delivery /effectiveness                                                    | 10                      |
| 4            | Topics covered are to be ready for Industrial Application                                               | 10                      |
| 5            | Overall motivation and inspiration received during the STTP                                             | 10                      |
| Total points |                                                                                                         | 50                      |

Write your takeaway :

learned about importance about industrial softwares.

Comments on STTP (All Arrangements such as Hospitality, Logistics, and Hall etc.):

Signature of the Participant

Nidasoshi, Taq: Hukkeri, Dist: Belgaum, Karnataka - 591 236  
 Phone:+91-8333-278887, Fax:278886, Web:[www.hsit.ac.in](http://www.hsit.ac.in)Mail:[principal@hsit.ac.in](mailto:principal@hsit.ac.in)



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Feedback

2022-23 (Odd)

### FEEDBACK on STTP

Title of the Activity: A collaborative hands-on STTP on "Design and Analysis using MSC Apex Software & Multi body Dynamics (Motion Simulation)"

| Gap No.: | Mapped POs            | POs Weightage | Mapped PSOs                                    | PSOs Weightage |
|----------|-----------------------|---------------|------------------------------------------------|----------------|
|          |                       |               |                                                |                |
| Date:    | 17.11.2022-19.11.2022 | Venue:        | Research Center<br>Mechanical Engg. Department |                |

Note: Solicit your response in numeric (10 points:Excellent-0 point: Not Good)

| S.No.        | Parameter                                                                                               | Numeric Response (0-10) |
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| 1            | The contents of the training on Analysis soft wares are helpful for the future carrier after graduation | 10                      |
| 2            | Analysis softwares learnt are helpful to analyze for complex mechanical systems                         | 10                      |
| 3            | Satisfaction of the trainers delivery /effectiveness                                                    | 10                      |
| 4            | Topics covered are to be ready for Industrial Application                                               | 10                      |
| 5            | Overall motivation and inspiration received during the STTP                                             | 10                      |
| Total points |                                                                                                         | 50                      |

Write your takeaway :

learned about real time industrial problems.

Comments on STTP (All Arrangements such as Hospitality, Logistics, and Hall etc.):

Signature of the Participant

Nidasoshi, Taq: Hukkeri, Dist: Belgaum, Karnataka - 591 236  
 Phone:+91-8333-278887, Fax:278886, Web:[www.hsit.ac.in](http://www.hsit.ac.in)Mail:[principal@hsit.ac.in](mailto:principal@hsit.ac.in)