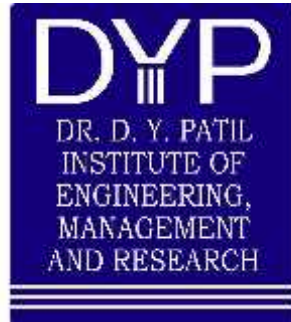


**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**



**DR. D. Y. PATIL INSTITUTE OF ENGINEERING, MANAGEMENT
& RESEARCH, AKURDI, PUNE – 44**

DEPARTMENT OF MECHANICAL ENGINEERING

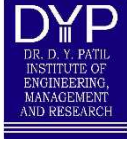
REPORT ON TECHNICAL EVENT

ARCADIA 2K18

Date: 10th & 11th January, 2018

ORGANIZING TEAM:

1. Mr. Kiran M. Narkar (HOD, Department of Mechanical Engineering)
2. Mr. Vishvanath R. Solapure (Overall Faculty Coordinator)
3. Mr. Arbaaz Saudagar (Overall Student Coordinator)
4. Mr. Sudhanshu Tiwari (MESA President)
5. Mr. Nikhil Gurav (MESA Vice-President)



**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**

FOREWORD

Mechanical Engineering Students' Association, (MESA) at Dr. D. Y. Patil Institute of Engineering, Management & Research, Akurdi, is the student body whose mission is to provide an accredited dynamic scholarly environment, wherein students learn independently and in collaboration with others to develop professional, communications and leadership abilities by organizing events and activities. The primary focus of these activities is to advance students' knowledge, self-confidence, provide needed recreational opportunities, help them enhance their skill sets and develop important aspects of personality, soft skills, viz. leadership, team spirit, sense of responsibility and accountability etc. and thus, groom them professionally to reach their potential.

The key objective of this Technical Event was to help the students' develop the participation spirit among them, which would involve, functioning independently, without need for constant reassurances from others; reasonable risk-taking; demonstration of personal control; self-motivation; feelings of usefulness; development and confirmation of identity; confidence, ethics, and integrity; realistic self-appraisal and self-understanding with competent technical knowledge, team work and healthy competition. We would like to thank to Campus Chairman Hon. Satej D. Patil, Campus Director Col. S. K. Joshi, Principal Dr. Mrs. A.V. Patil, Assistant Registrar Mr. Y. K. Patil, Chief Coordinator Dr. Mrs. Minaz Alvi and Technical Event Head Coordinator Mrs. A. V. Adwant & Mr. Lokesh Giripunje for their support and guidance for organizing technical events for students.

Mr. Arbaaz Saudagar
Student Coordinator

Mr. Vishvanath Solapure
Department Technical
Incharge

Mr. Kiran Narkar
H.O.D. [Mech.]

OBJECTIVES

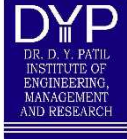
1. Appreciate and be able to execute strategic play.
2. Participate at a level appropriate to one's developmental stage.
3. Share in the planning and administration.
4. Provide reasonable leadership.
5. Work effectively within a group toward common goals.
6. Appreciate the rituals and conventions that give particular
Technical their unique meanings.
7. Develop the capacity to make reasoned decisions.
8. Develop and apply knowledge to practical life.

DEPARTMENT OF MECHANICAL ENGINEERING

Time-Table for Technical Events

ARCADIA 2K18

Sr. No.	Date	Name Of Event	Venue
1	10/01/2018	Robo- Soccer	Basement & C.R. 5
2		Spot - PPT	CAD Lab - 1 & C.R. 4
3	11/01/2018	Junk - Machines	Basement
4		CAD - War	CAD Lab - 1



**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**

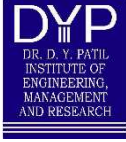
No. of Registrations

Event No.	Event Name	No. Of Registrations (Teams)	No. of Participants
1	CAD WARS	22	22
2	SPPT	12	24
3	JUNK MACHINES	12	34
4	ROBO SOCCER	12	47
Total No. of Participants =			127

JUDGES PANEL

Sr. No.	Name of Judge	Industry/College
CAD WARS		
1	Mr. Vineet Kadam (Alumnus) R&D QA Engineer	3DPLM Pune
2	Mr. N.A. Jadhav Asst. Prof.	APCOER, Pune
3	Mr. Y.N. Jangale Asst. Prof.	DYPIEMR, Pune
4	Mr. N.S. Modgi Asst. Prof.	DYPIEMR, Pune

Spot - PPT		
1	Mr. Yogesh M. Kalke Asst. Prof.	DYPSOEA, Ambi, Talegaon
2	Mr. Vishal Bansode Asst. Prof.	DYPIEMR, Pune
3	Mr. Nikhilesh Pawar Asst. Prof.	DYPIEMR, Pune
4	Mr. Y.N. Jangale Asst. Prof.	DYPIEMR, Pune



**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**

JUDGES PANEL

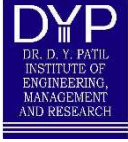
JUNK MACHINES		
1	Mr. Suhel Shaikh Alumnus	DYPIEMR, Pune
2	Mr. Mithun Sawant Asst. Prof. (Civil Dept.)	DYPIEMR, Pune
3	Mr. S.S. Gaikwad Asst. Prof.	DYPIEMR, Pune
4	Mr. P.R. Tripathi Asst. Prof.	DYPIEMR, Pune

ROBO SOCCER		
1	Mr. Akash Dhore (Alumnus) Engineer	Lear Corporation Pvt. Ltd. Pune
2	Mr. Amol Mali Asst. Prof.	DYPIEMR, Pune
3	Mr. Nikhilesh Pawar Asst. Prof.	DYPIEMR, Pune

Mr. Arbaaz Saudagar
Student Coordinator

Mr. Vishvanath Solapure
Department Technical
Incharge

Mr. Kiran Narkar
H.O.D. [Mech.]



CAD WAR

Rule Book

1. Entry fees for participants is 100/-
2. There will be three rounds as follows
 - A. MCQ round (Qualifying round)
 - B. Part Design
 - C. Assembly
3. Part design and Assembly are combined round's
4. Students who qualify the specific prescribed marks will be qualified for next level i.e Part design
5. Duration for Part Designing and Assembly will be of 2 hours.
4. Winners would be decided on the following parameters
 - A. Time duration in which the total assembly is completed
 - B. Accuracy of part design.
 - C. Addition of the marks obtained in all three rounds

Registration fees:

Rs. 100/team

Total Prizes:

1st Rs. 1500/-

2nd Rs. 1000/-



CAD – War: Participants doing design on CATIA



CAD – War: Participants doing design on CATIA



CAD-War: Distribution of prizes and certificates to winners by the hands of Alumni



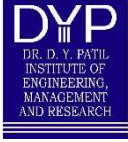
CAD-War: Distribution of prizes and certificates to winners by the hands of Alumni



CAD-War: Mr. K. M. Narkar welcoming Mr. Vineet Kadam

CAD-War:

- | | | |
|--------------|-------------|---------------|
| 1) Winner | Yash Dhake | (PCCOE, Pune) |
| 2) Runner-up | Amit Nemade | (Wadia, Pune) |



Spot Power Point Presentation (Spot-PPT)

INTRODUCTION:

We will give you topic and you have to make presentation based on that topic and then you have to present that ppt in front of the judges. After your presentation is done judges will ask you questions based on your ppt and you have to answer them simple isn't it? This event will increase your communication skill, confidence and it will also sharpen your technical knowledge.

RULES:

- 1) After topics are distributed no matter what, you won't get to swap or change the given topics.
- 2) Total time to make ppt – 2 hrs
- 3) Internet access will be for only 1 hr
- 4) Minimum 9 slides of main content should be there (Maximum 12)
- 5) No plagiarism is allowed if co-ordinators even got hint of it then you will be disqualified
- 6) Co-ordinators have total authority to modify rules if circumstances demand so
- 7) The teams will get 10 minutes for presentation followed by question and answer session.
- 8) This is a team event. Each team would comprise of two members from the same institution. Team composition cannot change once the college round is completed.
- 9) You need to register for the contest as a participant to volunteer by providing necessary personal data, before the registration closing date.
- 10) Once you register for the event, you indicate your acceptance that the organizers decision will be final and binding.
- 11) Prizes and certificates will be distributed for winning teams from inter-college contests. College level winners will receive certificates.
- 12) Bring your college I-Card & receipt on event day. Otherwise you won't be allowed

Registration fee:

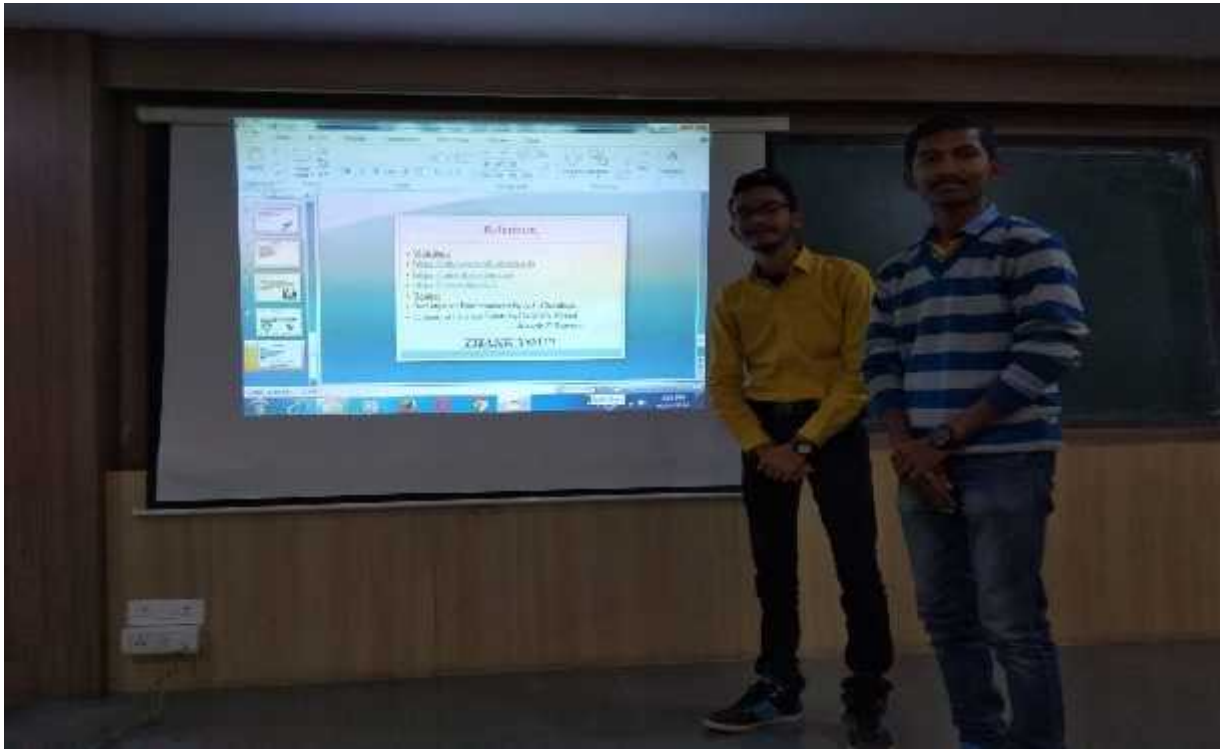
- 1) Rs. 100 for one
- 2) Rs. 150 for two

Total Prize: Rs. 3500/-

- 1ST PRIZE: Rs. 2000/-
2ND PRIZE: Rs. 1500/-

TOPICS for Presentations

- 1) Advanced energy conservation
- 2) ABS system
- 3) Alternative to petrol and diesel
- 4) Geothermal energy
- 5) Hydraulics
- 6) Jet engine
- 7) Carbon fibre
- 8) Latest technological advances in automobile engineering
- 9) Air powered car
- 10) Automated guided vehicles
- 11) 6 stroke engine
- 12) 3D printing
- 13) Tidal energy
- 14) Refrigeration and air-conditioning
- 15) Heat transfer
- 16) Safety and environment in industry
- 17) Electric vehicles
- 18) Types of clutches
- 19) DTSi
- 20) Rapid prototyping
- 21) Robotics in India
- 22) Smart suspension and free valve engines
- 23) Nano-materials
- 24) Nuclear reactor
- 25) Generation of solar cells



SPPT: Participants presenting paper



SPPT: Participants presenting paper



SPPT: Judges and audience of SPPT event



SPPT: Participants presenting paper



SPPT: Participants presenting paper

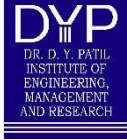
Spot – PPT

Winner:

**Vyom Patel & Shantanu Dixit (DYPIEMR,
Pune)**

Runner-Up:

**Shweta Patil & Makranda Gokhale (DYPIEMR,
Pune)**



JUNK-MACHINES

EVENT OBJECTIVE:

This event tests your ability to make use of every available resource in an optimized manner while racing against time. It gives you a chance to explore yourself and bring out a creative and innovative spark to create something from junk i.e. “Jugaad from Kabaad”. Brainstorming, innovation and fun, JUNK-MACHINES has it all. So, put on your hat of creativity, get ready to dirty your hands and let the “Junkyard War” begin.

EVENT STRUCTURE:

Round 1: Complete the given task using the materials provided by the organizers. There will be elimination after the first round based on the points acquired in round 1 and the shortlisted teams will compete in the final round for the title of the JUNK-MACHINES CHAMPIONS.

RULES:

1. No external equipment other than that provided by the organizers can be used.
2. Using equipment of other participants is also strictly prohibited (i.e. using some extra material).
3. Participants can be of different colleges/institutions. But, one person may not be a part of multiple teams for the same event.
4. The teams must adhere to the spirit of healthy competition and maintain decorum at all times.
5. Organizers reserve the right to disqualify any team indulging in misbehavior or violating any rules.
6. In case of disputes, the decision of the organizers and the judges will be final and binding to all.
7. Any team that is not ready at the specified time will be disqualified from the competition automatically.
8. Rules may be changed without prior intimation.

TEAM STRUCTURE AND ENTRY FEES

Registration fee:

Rs. 200/- per team (Maximum 3 participants per team)

Total Prize: Rs. 3500/-

1ST PRIZE: Rs. 2000/-

2ND PRIZE: Rs. 1500/-



Junk-Machines: Mr. K. M. Narkar & Faculties inaugurating event



Junk-Machines: Judges visiting participants to test their mechanism



Junk-Machines: Participants explaining their mechanism



Junk-Machines: Participants with Judges



Junk-Machines: Judges visiting participants to test their mechanism

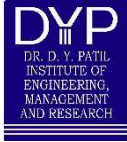
Junk – Machines

Winner

Tushar Lonkar, Rajkumar Shetakar, Baskeran Tevanswami (DYPIEMR, Pune)

Runner-Up

Viraj Yadav, Sahil Patil, Pratik Bhise (DYPIEMR, Pune)



ROBO-SOCCER

The League of Footballer Robots

INTRODUCTION:

Football- The most breath-taking game becomes even more so when It's the robots that play the game! Bring your footballer-bot to the game and become a part of the most attractive of the events of "ANKURAN 2K18". As an event that surely keeps everyone's eyes transfixed on the field, Robo-Soccer does not fail to entertain and teach at the same time. Explore the Robotics-aspect of ANKURAN 2K18 and experience the extravagant thrill as you make your bot wade past the opponent and ...that's right – SCORE!

RULES:

• **Max Current 5A.**

1. A maximum of 3 candidates pursuing undergraduate program in their institution are allowed per team.
2. Registration fee is Rs.350/- per team.
3. Teams can register at the desk put up in various colleges in and around Pune. Teams can also register at the registration desk on the day of the event, at least an hour prior to the event.

4. Robot Limitations

Maximum robot dimensions: 30cm x 30 cm x 30 cm.

Maximum weight 3 kg.

Power specifications:

Max Voltage: 12V (Normal Operation).

The robot cannot split into two independent parts.

Robot should be manually controlled.

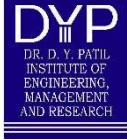
No weapons (blades, spikes) of any kind are to be attached onto the robot.

The participants are allowed to use any number of actuators/ controller switches.

5. There should be no intentional damage done to the other robot by means of attacking wires, wheels, motors etc.
6. **Note:** Any intentional damage to the field or to the opposing robot would result in immediate disqualification of the team.

7. Match:

The duration of each match will be 8 minutes (i.e. two halves, each of 4 minutes duration). A one minute break will be given after half time during which the teams will be allowed to attend to their robots.



**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**

Each match will be a one-on-one match between two similar teams selected randomly. For scoring system, refer to 8.A.

The team with the highest number of points is the winner of the match. In case of a tie, a tie breaker round will be held, details of which will be announced at the time of the event.

The teams will be short-listed for final rounds on the basis of their score in the elimination round.

In final rounds, matches will be one-on-one with a scoring system as in 8.A.

8. Scoring:

A. Elimination round:

I. Goal from inner circle: +20 points.

II. Goal from between inner circle and half line: +40 points

III. Goal from beyond half line: +60 points

IV. Negative points for fouls.

V. Disqualification after warning.

Note: This may change at the time of the event

9. A yellow card will be flashed on each hand touch after the first one. A maximum of three such cards will add up to a red card i.e. Disqualification.

10. Losing teams may re-register to participate again in the elimination round. Registration fees would be Rs.150/- for this case. (Organizers reserve the rights to close the re-registrations at any point of time).

11. Organizers have the authority to disqualify any team for misconduct or disorderly behavior. This team would not be allowed to re-register.

12. Organizers reserve the rights to make changes to the field design at any time without prior notification.

13. Organizers' decisions will be final and binding to all.

Registration Fees:

Rs. 350/- per team

Total Prize: Rs. 5000/-

1ST PRIZE: Rs. 3000/-

2ND PRIZE: Rs. 2000/-



Robo-Soccer: Bots preparing for match



Robo-Soccer: Arena with Judges at front



Robo-Soccer: During match



Robo-Soccer: Student coordinator explaining rules to participants

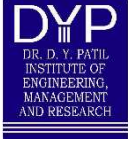


Robo-Soccer: Mr. K. M. Narkar distributing prizes and certificates to winner

Robo – Soccer

Winner: Team Jaguars (PDEA's COEM, Pune)

Runner-Up: Team Hydra (DYPIEMR, Pune)



**Dr. D. Y. Patil Institute of Engineering, Management & Research,
Akurdi, Pune 411044
Department of Mechanical Engineering**

Inno-Vision 2K18

DEPARTMENT OF MECHANICAL ENGINEERING

ARCADIA 2K18

Date: 10th & 11th January, 2018

Report on Technical Event prepared by.

- 1) Mr. Arbaaz Saudagar (Overall Student Coordinator) 7798384423
- 2) Sudhanshu Tiwari (MESA President) 9028466276
- 3) Mr. V. R. Solapure (Assistant Professor – Mechanical Department)
9860753134