

## VISION

Be a leader in promoting entrepreneurial mechanical engineering education, industry-relevant research and community building.

## MISSION

- Nurture Innovation, Creativity, Entrepreneurial Mindset, and Mechanical Engineering Knowledge in students by implementing novel educational experiences
- Develop effective instructional infrastructure and faculty resources.
- Promote interdisciplinary learning and expertise in the application of Information Technology.
- Contribute to community development and the growth of Mechanical Engineering through service, consulting and research activities

## PROGRAM EDUCATIONAL OBJECTIVES (PEOS):

The Mechanical Engineering graduates are expected to:

**PEO1:** Pursue a career in the field of Mechanical Engineering.

**PEO2:** Continue higher education and/or professional development courses for life-long learning.

**PEO3:** Support community building and economic development through research activities to improve the quality of life.

## PROGRAMME OUTCOMES (POS):

**PO1: Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural science and engineering sciences.

**PO3: Design/Development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.

**PO4: Conduct Investigations if complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

**PO5: Modern Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6: The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions of Engineering in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.

**PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11. Project management and finance:** Demonstrate knowledge and understanding of the Engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **PROGRAMS SPECIFIC OUTCOMES (PSO)**

**PSO1.** Graduate of the program will achieve excellence in advanced manufacturing systems with latest technologies

**PSO2.** Graduate will expertise in innovative courses, societal and industry oriented courses designed by the eminent faculty of the department.

**PSO3:** Graduate will involve in sponsored projects for motivating research activities



SR Engineering College (SREC) established in the year 2002 is sponsored by Sri Rajeshwara Educational Society which has four decades of rich experience in the field of Education. It is located on Warangal-Karimnagar highway at about 15 KM away from Warangal City. SR Group runs 3 Engineering Colleges, and scores of Junior Colleges and Schools spreading over Telangana and Andhra Pradesh.

SR Engineering College has been in the forefront imparting high quality technical education. State of the art infrastructure in all branches of engineering, dedicated and qualified staff, highly conducive environment for teaching-learning process are the hallmarks of this professionally managed institution.

The institute is an Autonomous Institution accredited by NAAC with 'A' Grade and their programs are accredited by National Board of Accreditation (NBA). The institute is affiliated to Jawaharlal Nehru Technological University, Hyderabad (JNTUH).

It is running 5 undergraduate (B. Tech) and 5 postgraduate (M. Tech) engineering programs besides, Master of Business Administration (MBA) and MBA (Integrated). The staff and the students take on new and interesting activities to acquire ability to think uniquely and independently. Our faculty, from across India and abroad, are considered to be the best in their fields. Prominent personalities from the industry take sessions with the students on a regular basis to acquaint them with contemporary best practices existing in the industry.

It adopts innovative approaches for continuous improvement by strategic planning, benchmarking and performance monitoring. The policy is to establish a system of quality assurance of its graduates by continuously assessing and upgrading teaching and learning practices. The central library and digital library provide the necessary resources and e-learning services.

SREC has taken up a very ambitious program of restructuring curriculum and adding state of the art technology enabled infrastructure to meet the international ABET guidelines of accreditation and thereby produce globally employable graduates with adequately equipped entrepreneurial skills. Our innovative curriculum equips students to interact and work with a heterogeneous

team, which is the requirement of a real world environment. Based on the current industry demand, courses are offered as professional electives.

Through active industry cooperation, SREC has established centers like CISCO Networking Academy, Microsoft Innovation Centre, IBM Centre of Excellence and NEN Centre for Entrepreneurship Development for nurturing specific skill sets for employability. To shape and transform the graduates to meet challenging and complex engineering tasks globally, the college has built and fostered relationship with reputed universities like Saint Louis University and Purdue University. To align with ABET system of outcome based curriculum, many reforms have been implemented in the course structure with due stress on basic sciences and humanities, interdisciplinary and core engineering including projects and seminars.

SREC provides an environment conducive for research where faculty and students continuously update their knowledge. Several research projects are in progress which are funded by DST, AICTE and UGC. A Women Technology Park, the first of its kind in the Telangana State has been sanctioned by DST.

The Centre for Student Services and Placements (CSSP) has been consistently improving its placement record with the students placed in various reputed organizations. The industry-institute interactions have been instrumental in getting MNCs to the institute and conducting campus recruitment drives. Our Career Guidance Cell provides career counseling and plays a pivotal role in building the career of aspiring engineers.

S R Engineering College is implementing a strategic action plan with specific focus on:

- Novel technology enabled teaching and learning techniques,
- Strengthen existing PG programs through modernization of laboratories and training of faculty and staff,
- Identify and start new PG programs in current areas of research with immediate relevance to the state and the country,
- Attract funding for sponsored research from DST, MNRE, AICTE and UGC,
- Strengthen functional areas like governance and administration, infrastructure, finance etc.
- Network with industry and institutes of repute through academic partnership for expanding avenues for internships and research.

**CHAIRMAN**



Sri A. Varada Reddy

Sri A. Varada Reddy is a pioneer in providing quality Education and his efforts have transformed the lives of many youngsters. A man known for discipline and vision, Sri Varada Reddy has been serving the field of education since 1976. With his unstinted efforts SR has become a trusted brand name. The society runs 98 educational institutions, which include schools, junior colleges, degree colleges and professional colleges are managed by SR group across Telangana and Andhra Pradesh states. International standards and values are given high priority while running the Institutions. Sri. Varada Reddy made quality consciousness coupled with ethical practices as the DNA of SR group.

Society aspires that Educational Technology ought to concern itself with creation of an environment-congenial to an Effective Teaching Learning Process. His goal is to produce devoted students and inspired teachers. Education is one of the most important means of empowering Society with the knowledge, skills and self-confidence necessary to participate fully in the development process. This is true not only because education is an entry point to other opportunities, but also because the educational achievements of students can have ripple effects.

## **SECRETARY**



Mr. A. Madhukar Reddy

- Mr. A. Madhukar Reddy is determined to offer professional education with high standards to the younger generation. He makes constant efforts to strengthen the network of SR group with world class technical institutions. Engineering institutions managed by the SR group have their distinct identity as they offer world class facilities to the aspirants. The establishment of SR International Institute of Technology (SRIIT) is the beginning of a new era of technical education which has collaboration with US Universities offering excellent opportunities for education in India and abroad.
- Mr. A. Madhukar Reddy renders constant efforts to benchmark the best practices to raise the standards of Technical Education. He travels widely to the best institutions worldwide to incorporate right practices in to the teaching system. His dedicated efforts resulted in blending the tradition of learning with modern techniques of teaching. The various institutions headed by him are SR Engineering College, Sumathi Reddy Institute of Technology for Women, SR International Institute of Technology, SR Degree & PG College and Sparkrill International School

## **PRINCIPAL**



Dr. V. Mahesh

Dr. V. Mahesh was awarded PhD in the area of Mechanical Engineering from JNT University, Hyderabad and M. Tech course in computer integrated manufacturing from Regional Engineering College, presently National Institute of Technology, Warangal. He joined as faculty of Mechanical Engineering at SR Engineering College in the year 2006 and has been serving the institute since then. He headed the department of Mechanical Engineering during the period 2007 – 2012, as Dean (Research) from 2012 to 2015. In November 2015, he took over as the Principal of the college.

He has more than 20 years of teaching experience and successfully guided many students for their UG and PG projects. One research scholar has completed his PhD and currently he is guiding three scholars. He has two research projects to his credit sponsored by Department of Science and Technology (DST). He has published more than 40 papers in various national and international journals and conferences. He is a reviewer of number of reputed journals in the area of mechanical engineering. His areas of interest include Cognitive Science, Computer integrated manufacturing, Supply chain management and Metal Matrix Composites. He is a Chartered Engineer and Member of The Institution of Engineers (INDIA). He is a life member of Indian Society for Technical Education (ISTE) and International Association of Engineers.

He served as the Chairman, Board of Studies for the UG and PG programmes in Mechanical Engineering at SR Engineering College (Autonomous). He also served as the Member, Board of Studies of Production Engineering, JNTU Hyderabad during academic year 2011-12 & 2012-13.

**HEAD OF THE DEPARTMENT**





Mr. B. Satish Kumar

It is a great pleasure to acknowledge that the students of the Department of Mechanical Engineering are publishing the new issue of the annual departmental magazine. I would like to appreciate the efforts of the students to publish this issue for their academic progress. This publication will be a mode of developing a better understanding within the campus and thus unite the students for the process of institutional development. I would like to express my hearty congratulations and best wishes to the faculty advisors and editorial members of the *Mechazine*, whose sincere efforts made it possible for the magazine to see the light of the day.

With the rapidly changing technologies, it has become essential for the students to be updated with the recent development in their respective field of interest. So *Mechazine* is one such endeavour started by our students, which I hope would scale pinnacles of success and popularity in coming future.

It is so nice to observe the all round talent and enthusiasm of the students as reflected in various articles of the magazine. This publication will become a forum to express ideas of the students both technical and literary

I would like to thank all our wishers contributing for the publication of this magazine.

**MESSAGE FROM COMMITTEE**

**(STAFF ADVISORS)**

Great emphasis on education and better living has lead to great studies of progress in various fields especially, the boom being in science and technology. Awareness among the intelligentsia as paved way in producing worthy students keen on academics.

“MECHAZINE” voices the thoughts of our students, keeping before us a spectrum of topics of varied interest. It is a platform of the students to pen their thoughts lucidly; an occasion for them to exhibit their inherent talents in written skills.

“MECHAZINE-2018” looks forward for constant support and encouragement from its readers.

## INDEX



Technical



Latest Innovations



Students Achievements



# Placements

# TECHNICAL

## **HISTORY OF MECHANICS**

The first one to seriously ponder about the nature of the nature were the ancient Greeks. However, following the Aristotelian views, logic was more important than experiment. Since it is logical that heavier bodies fall faster to the ground, it necessarily is the case. For example, an object which is twice as massive as another will reach the ground in half the time. This fault perception (as did many others) continued for many centuries.

Modern scientific revolution began in the latter half of the 16th century. The first major cracks in Aristotelian "status quo" came with Nicolas Copernicus who challenged Aristotle's geocentric view by placing the sun at the "center". His ideas were published in 1543.

Using Tycho Brahe's superb planetary observations, Kepler then improved Copernicus picture and derived his famous planetary laws of motion. These were published in 1609.

Instruments of Revolutions: Galileo's telescope (at the Florence museum of the history of science). The discovery of craters on the moon and the four large moons of Jupiter demonstrated that the heavens are non perfect and that they too are subject to natural law.

Later, Galileo who is the forefather of experimental physics and astronomy began experimenting and taking astronomical observations. He found that the Heavens are not as perfect as previously

believed (e.g., by noticing craters on the moon, or other moons orbiting Jupiter) and he could also quantify for the first time simple mechanical results, such that the velocity of a ball rolling down an incline increases in proportion to the square root of time or that objects of different masses fall at the same speed.

Other contemporary contributions to the scientific revolution are those of the "science philosophers" Sir Francis Bacon and Giordano Bruno. Bacon's scientific philosophy is the basis for modern scientific methodology. Namely, drawing knowledge from the natural world through experimentation, observation, and testing of hypotheses. His contemporary Bruno, is the first to suggest that even the sun is not at the center of the universe, that other stars are like the sun and they too may have life harboring planets. For this and other heresies, he was burned at the stake in 1600.

The greatest theoretical breakthrough was achieved of course with Sir Isaac Newton. He formulated three basic laws of motion to describe both earthly and celestial objects, published in his famous "Philosophiae Naturalis Principia Mathematica" in 1687 (aka "Principia" for short). Along the way, he also invented the calculus required to use these laws. Incidentally, the notation we use today follows the independent derivation by Leibniz, not the one by Newton.

Over more than a century following the Newtonian formulation, the notion of energy slowly evolved. First steps towards the understanding of kinetic energy were already done by Leibniz, in the late 16th century, but it took many more decades of thought and experimentation by several people to realize that total energy, which includes mechanical, potential and thermal, is conserved. This equivalent between mechanical work and heat was independently concluded by Julius Robert von Mayer and James Prescott Joule, around 1843. A few years later, the idea was generalized by Hermann von Helmholtz.

**L.Radhakrishna**

**Asst. Professor**

## FLEXIBLE MANUFACTURING SYSTEM

A **flexible manufacturing system (FMS)** is a manufacturing system in which there is some amount of flexibility that allows the system to react in case of changes, whether predicted or unpredicted. This flexibility is generally considered to fall into two categories, which both contain numerous subcategories.



Fig. 1: A Typical FMS

The first category, *routing flexibility*, covers the system's ability to be changed to produce new product types, and ability to change the order of operations executed on a part. The second category is called *machine flexibility*, which consists of the ability to use multiple machines to perform the same operation on a part, as well as the system's ability to absorb large-scale changes, such as in volume, capacity, or capability.

Most **FMS** consist of three main systems. The work machines which are often automated CNC machines are connected by a material handling system to optimize parts flow and the central control computer which controls material movements and machine flow.

The main advantages of an FMS is its high flexibility in managing manufacturing resources like time and effort in order to manufacture a new product. The best application of an FMS is found in the production of small sets of products like those from a mass production.

**Flexibility:**

Flexibility in manufacturing means the ability to deal with slightly or greatly mixed parts, to allow variation in parts assembly and variations in process sequence, change the production volume and change the design of certain product being manufactured.

**ADVANTAGES:**

- Reduced manufacturing cost
  - Lower cost per unit produced,
  - Greater labor productivity,
  - Greater machine efficiency,
  - Improved quality,
  - Increased system reliability,
  - Reduced parts inventories,
  - Adaptability to CAD/CAM operations.
  - Shorter lead times
  - Improved efficiency
  - Increase production rate
- DISADVANTAGES:**
- Initial set-up cost is high,
  - Substantial pre-planning
  - Requirement of skilled labor
  - Complicated system
  - Maintenance is complicated



Fig. 2: General FMS

Training FMS with learning robot SCORBOT-ER 4u, workbench CNC Mill and CNC Lathe

An **Industrial Flexible Manufacturing System** (FMS) consists of robots, Computer-controlled Machines, Computer Numerical Controlled machines (CNC), instrumentation devices, computers, sensors, and other stand alone systems such as inspection machines. The use of robots in the production segment of manufacturing industries promises a variety of benefits ranging from high utilization to high volume of productivity. Each Robotic cell or node will be located along a material handling system such as a conveyor or automatic guided vehicle. The production of each part or work-piece will require a different combination of manufacturing nodes. The movement of parts from one node to another is done through the material handling system. At the end of part processing, the finished parts will be routed to an automatic inspection node, and subsequently unloaded from the Flexible Manufacturing System.



Fig. 3: CNC machine

**The FMS data traffic** consists of large files and short messages, and mostly come from nodes, devices and instruments. The message size ranges between a few bytes to several hundreds of bytes. Executive software and other data, for example, are files with a large size, while messages for machining data, instrument to instrument communications, status monitoring, and data reporting are transmitted in small size.



There is also some variation on response time. Large program files from a main computer usually take about 60 seconds to be down loaded into each instrument or node at the beginning of FMS operation. Messages for instrument data need to be sent in a periodic time with deterministic time delay. Other types of messages used for emergency reporting are quite short in size and must be transmitted and received with an almost instantaneous response. The demands for **reliable FMS protocol** that support all the FMS data characteristics are now urgent. The existing IEEE standard protocols do not fully satisfy the real time communication requirements in this environment. The delay of CSMA/CD is unbounded as the number of nodes increases due to the message collisions. Token Bus has a deterministic message delay, but it does not support prioritized access scheme which is needed in **FMS communications**. Token Ring provides prioritized access and has a low message delay, however, its data transmission is unreliable. A single node failure which may occur quite often in FMS causes transmission errors of passing message in that node. In addition, the topology of Token Ring results in high wiring installation and cost.

A design of **FMS communication** that supports a real time communication with bounded message delay and reacts promptly to any emergency signal is needed. Because of machine failure and malfunction due to heat, dust, and electromagnetic interference is common, a prioritized mechanism and immediate transmission of emergency messages are needed so that a suitable recovery procedure can be applied. A modification of standard Token Bus to implement a prioritized access scheme was proposed to allow transmission of short and periodic messages with a low delay compared to the one for long messages.

By  
Mohammed. Ansar  
III Yr

## **GALVANIZATION**

Galvanization provides a rust-resistant barrier to steel parts exposed to the environment.

Galvanization is a metal coating process in which a ferrous part is coated with a thin layer of zinc. The zinc coating seals the surface of the part from the environment, preventing oxidation and weathering from occurring.

The primary method of galvanization is “hot dip galvanization”, which has been in use for over 150 years. While the idea of coating a part in molten zinc was first proposed by chemist Paul

Jacques Malouin in 1742, the process was not put into practice until patented by chemist Stanislas Sorel in 1836. Sorel's process has changed little since then, and still involves coating a part in molten zinc after cleaning it with an acid solution and coating the part in flux.

#### Preparing a Part to be Galvanized

Cleaning the part before galvanization is extremely important. Surface contaminants such as grease, dust, or dirt can compromise the galvanization process. Generally, parts are cleaned in a two step process. In the first step, the part is cleaned in a hot alkaline solution to remove any surface contaminants. In the second step, the part is immersed in a weak acid solution to remove rust and scale, resulting in a clean and smooth surface.

After cleaning, the part is coated in flux to encourage metallurgical bonding during the galvanization process. The flux is a zinc ammonium chloride solution. In "dry galvanization", the part is dipped into a bath of flux, then removed and let to dry before the galvanization process. In "wet galvanization", the flux floats on top of the molten zinc, so the part passes through the flux before it touches the molten zinc.

**The Hot Dip Galvanization Process:** In both dry and wet galvanization, the part is immersed in a molten zinc bath with a temperature of about 860°F(460°C). The zinc metallurgically bonds to the steel part, resulting in a transition layer of steel/zinc alloy between the steel part and the zinc coating. The galvanization process results in a dull gray crystalline surface finish, often referred to as "spangle".

Within 24-48 hours after galvanizing, the outer surface of the zinc coating becomes zinc oxide. Any post-galvanization coating operations, such as powder coating, need to be performed before this oxidation occurs. After short term atmospheric exposure, some of the outer layer of zinc oxide becomes zinc hydroxide. After extended atmospheric exposure, the zinc oxide is converted to zinc carbonate. This "patina" provides an additional layer of protection to the steel part, helping it to withstand weathering.

**Benefits of Galvanizing Metal Parts:** Galvanization helps to extend the life of steel parts by providing a barrier between the steel and the atmosphere, preventing iron oxide from forming on the surface of the steel. Galvanization also provides superior corrosion resistance to parts exposed to the environment. Galvanization provides a cost-effective solution for coating steel parts, specifically those that will receive significant environmental exposure over their lifetime.

By  
D. Suresh  
IV Yr.

LATEST

# INNOVATIONS

## **SURFACE CLADDING**

**Cladding** is the bonding together of dissimilar metals. It is different from fusion welding or gluing as a method to fasten the metals together. Cladding is often achieved by extruding two metals through a die as well as pressing or rolling sheets together under high pressure.

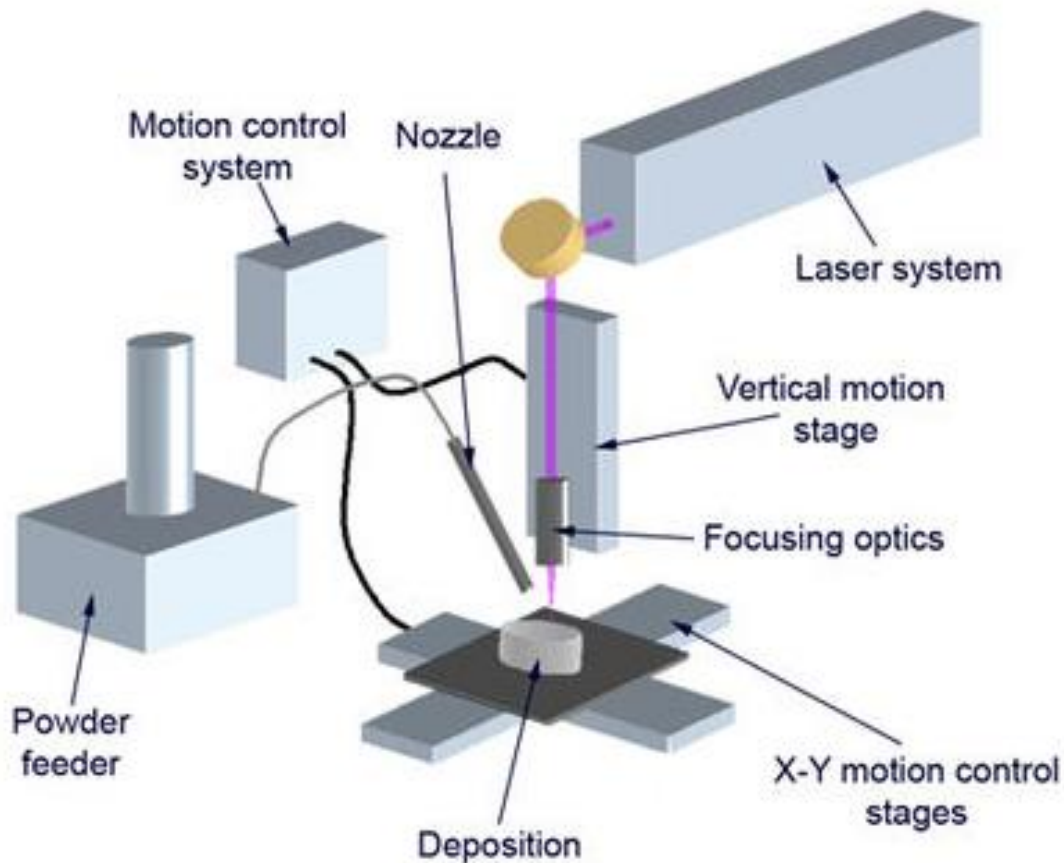


Fig. 1: A Typical Cladding Equipment

The United States Mint uses cladding to manufacture coins from different metals. This allows a cheaper metal to be used as filler.

In roll bonding, two or more layers of different metals are thoroughly cleaned and passed through a pair of rollers under sufficient pressure to bond the layers. The pressure is high enough to deform the metals and reduce the combined thickness of the clad material. Heat may be applied, especially when metals are not ductile enough. As an example of application, bonding of the sheets can be controlled by painting a pattern on one sheet; only the bare metal surfaces bond, and the un-bonded portion can be inflated if the sheet is heated and the coating vaporizes. This is used to make heat exchangers for refrigeration equipment.

In explosive welding, the pressure to bond the two layers is provided by detonation of a sheet of chemical explosive. No heat-affected zone is produced in the bond between metals. The explosion propagates across the sheet, which tends to expel impurities and oxides from between the sheets. Pieces up to 4 x 16 metres can be manufactured. The process is useful for cladding metal sheets with a corrosion-resistant layer.

Laser Cladding is a method of depositing material by which a powdered or wire feedstock material is melted and consolidated by use of a laser in order to coat part of a substrate or fabricate a near-net shape part (additive manufacturing technology) .

It is often used to improve mechanical properties or increase corrosion resistance, repair worn out parts,<sup>[4][5]</sup> and fabricate metal matrix composites.<sup>[6]</sup> Surface material may be laser clad directly onto a highly stressed component, i.e. to make a self-lubricating surface. However, such a modification requires further industrialization of the cladding process to adapt it for efficient mass production. Further research on the detailed effects from surface topography, material composition of the laser clad material and the composition of the additive package in the lubricants on the tribological properties and performance are preferably studied with tribometric testing.

The powder used in laser cladding is normally of a metallic nature, and is injected into the system by either coaxial or lateral nozzles. The interaction of the metallic powder stream and the laser causes melting to occur, and is known as the melt pool. This is deposited onto a substrate; moving the substrate allows the melt pool to solidify and thus produces a track of solid metal. This is the most common technique, however some processes involve moving the laser/nozzle assembly over a stationary substrate to produce solidified tracks. The motion of the substrate is guided by a CAD system which interpolates solid objects into a set of tracks, thus producing the desired part at the end of the trajectory.

A great deal of research is now being concentrated on developing automatic laser cladding machines. Many of the process parameters must be manually set, such as laser power, laser focal point, substrate velocity, powder injection rate, etc., and thus require the attention of a specialized technician to ensure proper results. However, many groups are focusing their attention on developing sensors to measure the process online. Such sensors monitor the clad's geometry (height and width of deposited track), metallurgical properties (such as the rate of solidification, and hence the final microstructure), and temperature information of both the immediate melt pool and its surrounding areas. With such sensors, control strategies are being designed such that constant observation from a technician is no longer required to produce a final product. Further research has been directed to forward processing where system parameters are developed around specific metallurgical properties for user defined applications (such as microstructure, internal stresses, dilution zone gradients, and clad contact angle).

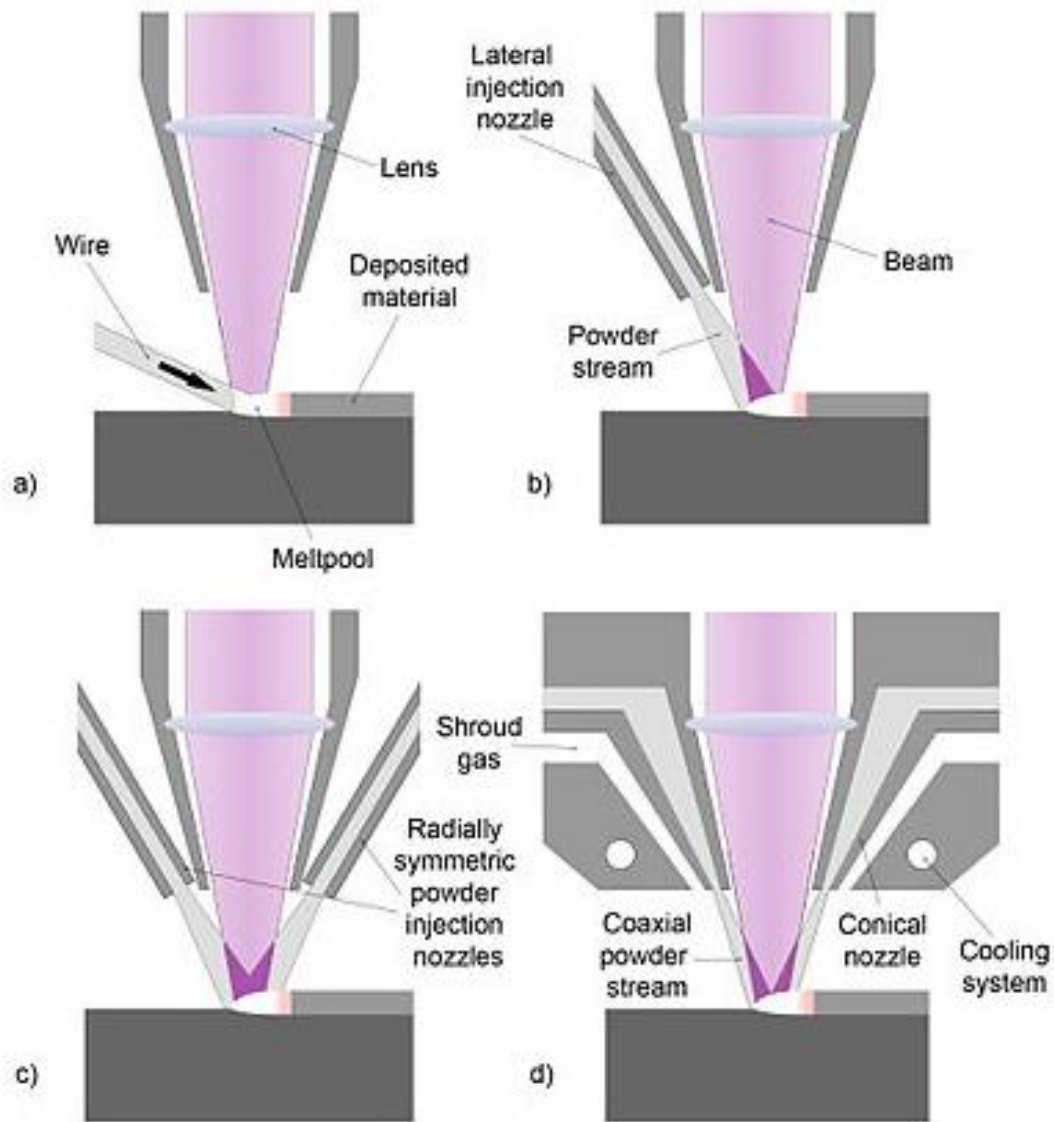


Fig. 2: Different Feeding Systems available

## ADVANTAGES

- Best technique for coating any shape => increase life-time of wearing parts.
- Particular dispositions for repairing parts (ideal if the mould of the part no longer exist or too long time needed for a new fabrication).
- Most suited technique for graded material application.
- Well adapted for near-net-shape manufacturing.
- Low dilution between track and substrate (unlike other welding processes and strong metallurgical bond).
- Low deformation of the substrate and small heat affected zone (HAZ).

- High cooling rate => fine microstructure.
- A lot of material flexibility (metal, ceramic, even polymer).
- Built part is free of crack and porosity.
- Compact technology.

By  
G. Ashok  
III Yr

## STUDENT ACHIEVEMENTS

S.No	Name of the Student	Name of the Conference / Symposium	Organized by	Name of the Event	Month & Year
1.	K.Enosh Md.Imran	IUCEE-SCALE Annual Student Conference	Thiagarajar College of Engineering, Madurai.	Transforming Communities: Empowering Lives	5 <sup>th</sup> - 7 <sup>th</sup> January, 2018.
2.	Prakash Raineni, L.Vivek	Comprehensive Automobile Development Internship	BITS Pilani, Hyderabad.	Internship	16 <sup>th</sup> - 23 <sup>rd</sup> December, 2017.
3.	Mansoor Ali Sabir, Mohammad Muftien Ansaar, Syed Amer Irfan,	TIE Grand Fostering Entrepreneurship	SRIX, Warangal.	TIE Grand Business Plan Competition	18 <sup>th</sup> December, 2017.



	Mohd. Imran Ahmed				
4.	K.Enosh, G.Shravan K.Vamshi krishna E.Naresh nayak	Robocon	MIT, Pune.	Robo Race Competition	26 <sup>th</sup> February - 2 <sup>nd</sup> March, 2018.
5.	G.Ashok E.Ramyasri G.Sai Manish	Make n-Market	SRIX, Warangal.	Ideation Fest	2 <sup>nd</sup> February, 2018.

## PLACEMENTS

S.NO.	Name of The Company	No. of the Students
1.	Power Mech	03
2.	IBS	01
3.	Justdial	04
4.	Rapid Robotics	01
5.	HGS	01
6.	Tech Mahindra	01
7.	Wonjin	18
8.	New Dolphin Machining Solutions	01
9.	India Industries	2
10.	Meldon Industries	1
11.	Asahi India Glass Ltd	4
12.	Infosys	1

