



INNOVATIVE TEACHING- Collaborative learning

Dr. K. Chockalingam, M.E., M.B.A., Ph.D., F.I.E

Associate Professor

Department of Mechanical Engineering

Thiagarajar college of Engineering

Madurai – 625 015

Tamil Nadu

Collaborative learning

- **Objective:**
- The objective of collaborative activity is to promote active exchange of ideas within small groups not only increases interest among the participants but also promotes critical thinking.
- The name of the course: **Additive Manufacturing**
- The topic for which the activities are designed: **Beyond the syllabus on Additive Manufacturing / Rapid prototyping**
- The activity: **Brain storming, TPS**
- Question asked to the students: **Identify the latest development, application and institutions doing research on Additive Manufacturing (which was not included in syllabus.)**

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17. Reduction in cost (Initial-operating cost)
 18. Reduction in Build time.
 19. Defects - (Identifications, reduction method)
 20. Maintenance & safety mechanism
 21. Standard for AM Manufacturing
 22. Surface finish of AM
 23. Various types of material
 24. Details studied for posturing apparatus
 25. AM machine for Alloy
1. Future Based.
 2. Application.
 3. Group ASS-2 (Mem)
 4. PPT
 5. Apart from class work
 6. Separate Topic
 7. New field.
 8. Process chain for complicated part
 9. Application of AM in AE & Allied field.
 10. Academic institution working in india & Abroad.
 11. Industries used in AM
 12. Latest developed in RP
 13. Latest Research in RP (Process, Material)
 14. Usages of AM in Medical field.
 15. " " " " Defense field
 16. Selection of AM is Based on application.

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- **Outcome of the process**
- It was amazing response. The assignment was unique in nature, the referred various web sites, journals, books not mentioned in the syllabus also they were able to mention what are all institutions working in the area of additive manufacturing/rapid prototyping.
- The assignment was not copied and done by individual (by group) with full involvement.
- **Challenges:** Time management

RUBRIC FOR PRESENTATION

➤ For presentation following rubric is used

Rubric	Excellent (10)	Very good (8)	Good (5)	Poor (2)
Technical content in the presentation				
communication skill				
Usage of modern tools				
Source of the presentation materials				
Contribution of the individuals				

Additive Manufacturing Models

UG PROJECT



ENGINEERING EDUCATION MODEL





Thank you