



PROJECT WORKFLOW IN CTF PROJECTS



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2018111093





1. IDEA

IDEA PROPOSAL

The creative and intellectual idea must be put forth by the candidate.

REVIEW OF THE IDEA

The idea proposed is evaluated by seniors to ensure no such similar projects are done in the past.

COMPLETED REQUEST

The idea is sanctioned to proceed by forming a team with desired candidates.



2. Mechanism

In case of technical projects the suitable mechanisms are chosen to ensure proper working conditions. These are attained through theoretical knowledge. The links and joints are the specified.



3. CAD Model

Based on the theoretical calculations and mechanisms, CAD models are prepared accordingly and then simulated to check the working condition. This is a tentative success.

Various software used are:

- NX Siemens
- Fusion 360
- Creo
- Catia, etc.



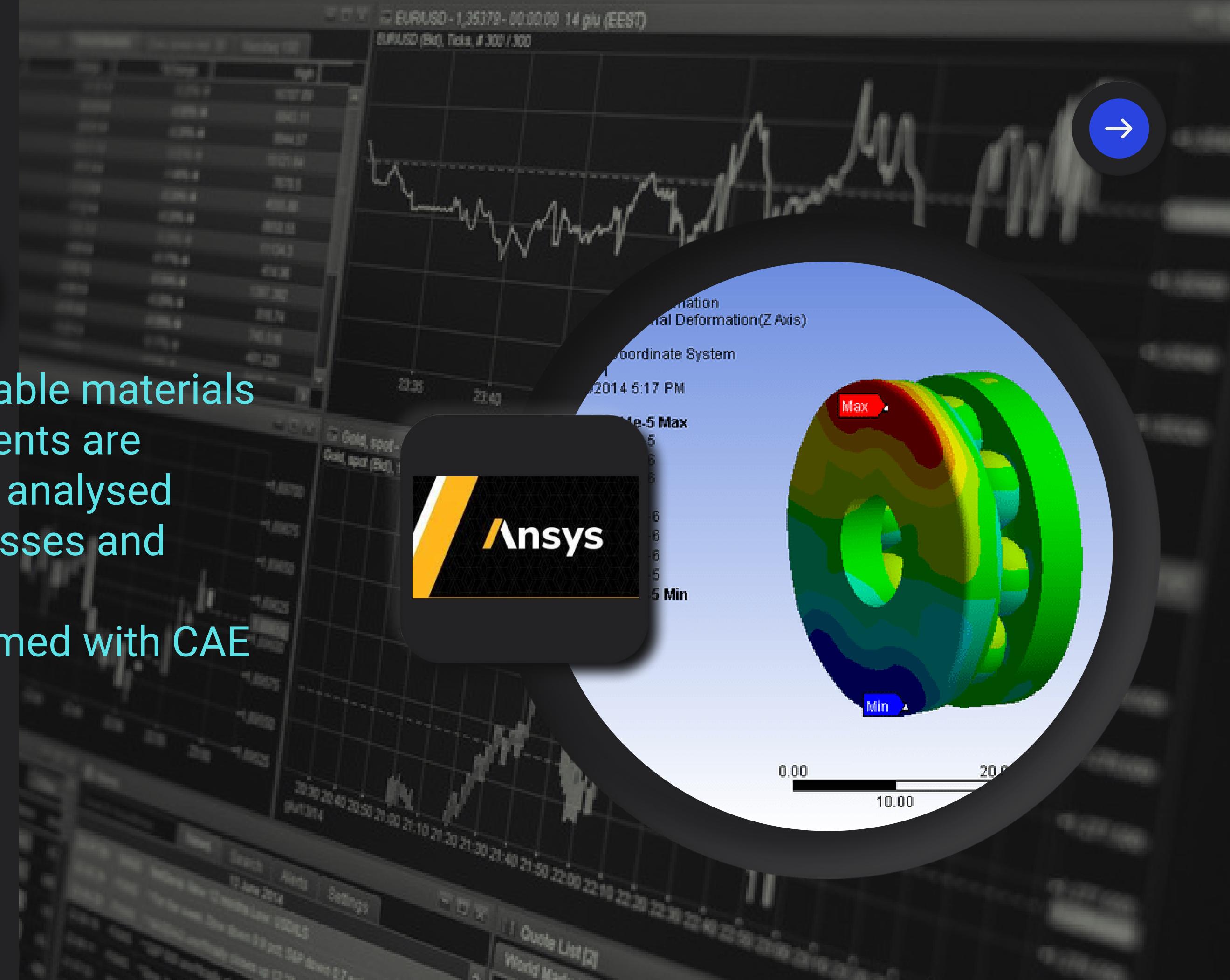


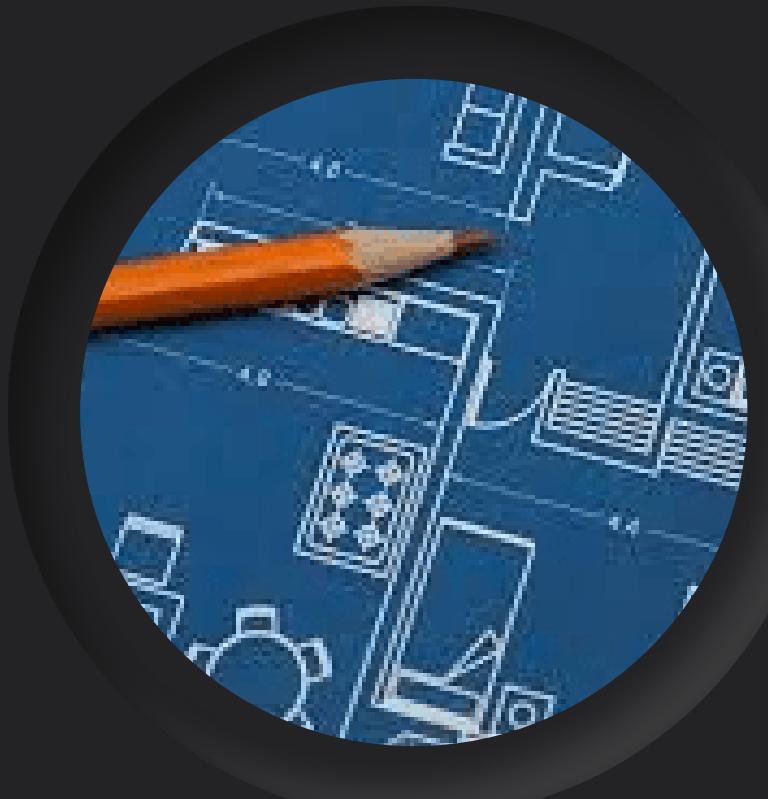
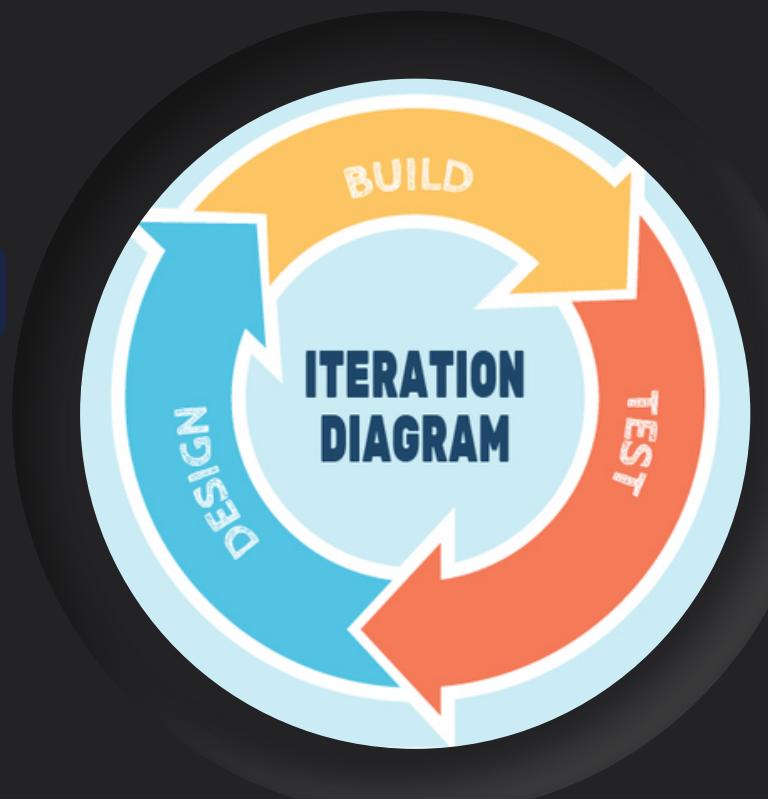
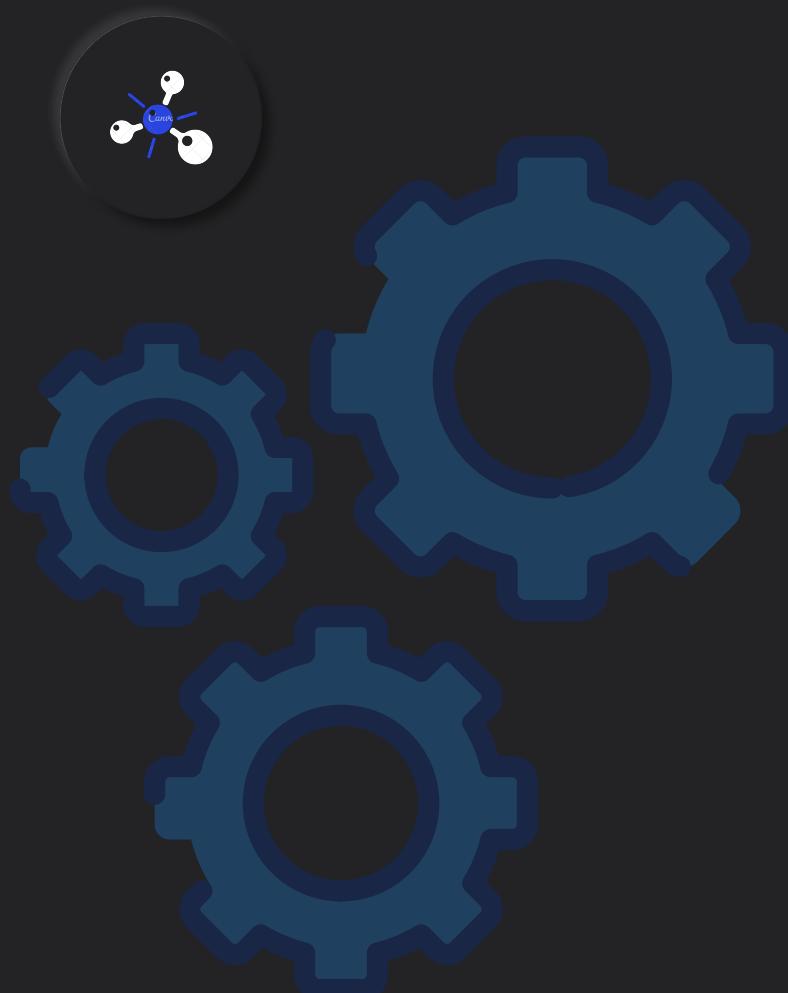
4. Analysis

After modelling, suitable materials for specific components are chosen and then are analysed under subjected stresses and strains.

These can be performed with CAE softwares such as:

- Ansys
- NX Nastran
- Hypermesh etc.



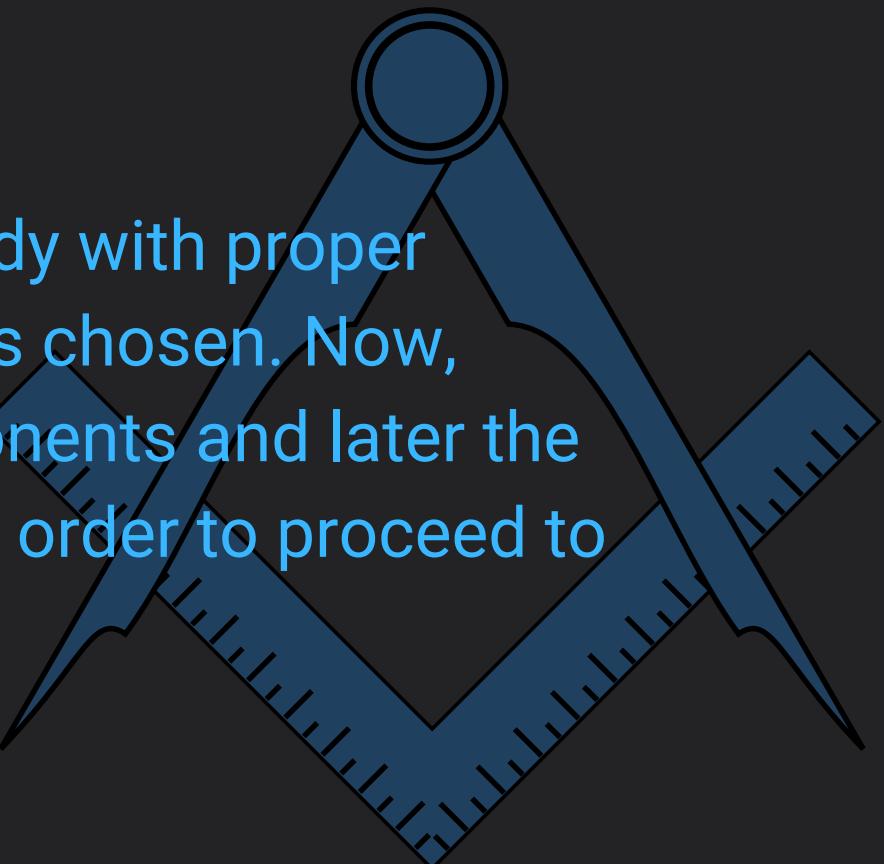


4. Iteration

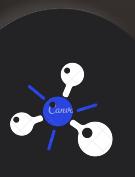
After analysis, repeated tests are done via simulation and analysis under new materials and stress to choose the perfect material and component to withstand stresses and also economically available.

5. Drafting

The project is virtually ready with proper components and materials chosen. Now, individual drafts of components and later the entire assembly is done in order to proceed to manufacturing.



FINAL STEPS



7. Manufacturing

The drafted components are given to a manufacturing company and then the manufactured parts are availed. Some can be manufactured at the workshop if possible.

8. Assembly

When the manufactured components arrive, these are then assembled together as per the draft.

9. Finetune working

When the parts are assembled, they are then tested by supplying power via engine or other means. The results are obtained to calculate the efficiency.

THANK YOU