* I have utilized my available resources maximum and produced output to management as & when required. The main task involved identifying cost reduction opportunities, working on new projects Basic engg & cost estimation, RnD projects new product development & scaleup, commercial plant proposal making etc.
* Some projects like Beads plant, Sewree Bitumen facility, Spare exchangers for Taloja/Baddi, Multimill installation Loop reactor high pressure catalyst dosing system, Baddi Splitter PSV changing are completed successfully and yielded desired results for the company.
* Other new projects/products proposals are prepared with futuristic view and will be considered by management for execution.

**Below is List of projects/products/tasks worked during FY16-17:**

1. **Sewree Projects:**

Bitumen storage phase1 at VVF Ltd, Sewree

* 1. All basic engg done accurately
  2. The new pressure control loop system devised & successfully implemented. Without this there will not have been project success first time
  3. Hazop study done, SOP made, safety training given, checklist given to operators
  4. Business case was developed. This has formed basis for top management to take decision to enter into this line of business.

1. **Taloja Projects:**
   1. Fatty acid beads project execution & commissioning
   2. Spare exchangers of DFA plant of Taloja & Baddi:
      1. As per concept, worked out basic specifications of universal exchangers for DFA plant Taloja critical exchangers
      2. The universal exchangers mapped with Baddi DFA plant critical exchangers so that plant need is addressed
      3. The all 7 exchangers delivered in Mar17.
      4. Out of this 1 will be replaced at Baddi and 1 will be replaced at Taloja (in place of failed exchangers).
   3. Multimill installation for VegaETS product powdering:
      1. Carried out trials at vendor places
      2. Shortlisted vendor to meet our requirement
      3. Even though there was limited knowledge of this equipment, this machine is properly commissioned and have incorporated state of art technique like VFD, static charge elimination etc.
   4. Loop reactor plant expansion:
      1. Various schemes presented for expansion of plant
      2. However it was finally cleared that High pressure catalyst dosing system will be implemented to reduce Batch cycle time & hence increase capacity of plant
      3. Modified PID prepared, PFD prepared, existing equipments validated for High pressure use in liaison with consultant M/s Arrihant engineers.
      4. The plant is modified now for High pressure catalyst dosing and it is giving results of improved capacity & reduction in catalyst consumption.
   5. 03D3 project proposal preparation & query resolution with M/s Montz.
      1. The project is approved & under execution.
      2. Played key role in understanding the requirement from where the project was left in 2010 and liasioning with alcohol production team and M/s Montz. All grey areas are cleared & project got cleared for execution.
   6. Reworking of Steam Turbine Project proposal. This involved deep working of concepts, savings calculations, liasioning with all stake holders etc.
   7. Reworking of Deodorizer project proposal. This involved drawing new concepts to reduce capital cost, operating cost calculations, verifying the proposal etc.
   8. Working of Proposal for VegaESI65 proposal. This involved making PID, equipment list, design of equipments, PFD, costing, layout making, benefit evaluation, working of project cost at different capacity etc.
   9. Working of Proposal for K1/K2 Sion shifting to Taloja for Alcohol fractionation.
   10. Working on NG use alternative production projects: Methanol, H2O2, acetylene, CS2 etc.
   11. Working of Taloja Saponification plant costing
2. **Baddi factory related work**:
   1. Baddi Splitter PSV changing and steam pipe project:
   2. Baddi to Jammu project workings
   3. Working on Alternative saponification routes & continuous plant making from batch process- Milindia quote obtained
   4. Hazop study of Baddi loop reactor reviewed with consultant
   5. Hydrogenation plant High pressure catalyst dosing system
   6. Talc plant up gradation proposal WBS creation
   7. Nitrogen blanketing proposal making
   8. Splitting & distillation flow modelling along with consultant Mr Thanawalla.
   9. Baddi DFA plant visit & suggested modifications report for improving yield and energy conservation. Equipment shifting from Sion in progress.
   10. Proposal prepared for Water Jet ejector system for DFA plant (distillation & Precon-Postcon), Milindia Saponification Plant
   11. Baddi ETP to CETP line project WBS created
3. **Indonesia Phase2 project proposal/costing done as per required**
4. **Daman fire hydrant system WBS prepared**
5. **Kutch2 Glycerine storage costing done**
6. **Working with R&D and Maintenance team:**
7. VegaETS product:
   1. There were challenges in pilot plant for scaleup of this product from lab scale regarding hot oil temperature issue, filtration issue. Worked closely with RnD and maintenance team to do planned modification. The modifications proposed to reduce batch cycle time and improving product quality.
   2. This has established the product in pilot plant with much lower batch cycle time (earlier 13-14hrs, now it is 8-9hrs)
   3. Considering this, project proposal was prepared for commercial scale plant. However it is not approved. Rather tolling route will be preferred. Thus toller identification exercise was carried out.
8. VegaESi65 product:
   1. There was challenges in pilot plant for scaleup of this product from lab scale regarding Material colour issue, high batch cycle time, flaking etc.
   2. All the problems are eliminated by increasing hot oil pump flow, changing reactor temperature philosophy, jacketed line to product drain line, changing MS line of N2 to SS316 line. Changed reactor temperature raising process from gradual to stepwise, which has led major change in restoring product quality.
   3. All the above efforts are executed with the help of maintenance team and coordination with RnD. RnD product literature studied so that the root cause of problem is identified and eliminate it.
   4. For flaking of product, M/s Arrowhead chilldrum is arranged and successful trials conducted.
   5. For flaking of product at Syndet plant, pilot plant autoclave is suggested as safe method and executed the same to get flaking material.
   6. Considering above leanings, commercial scale plant at Syndet plant proposal prepared.
9. VegaAcid product:
   1. For producing of pelargonic acid & azelaic acid plant, worked in coordination with consultant to establish pilot plant concept of 36tpa capacity.
   2. This involved making/checking concept, design basis, PFD, equipment list, equipment design, costing, vendor enquiry, final capital proposal etc.
   3. The option-1 & 2 proposals were prepared & presented to management for approval.
   4. Participated in review meetings.
   5. Finally proposal dropped due to high capital cost. However, the same will be pursued further by way of third party development.
10. Toll manufacturer visits:
    1. In order to manufacture VegaETS outside, toll manufacturers like M/s Venus industries goa, M/s Symphony chemicals ambernath.
    2. This involved making equipment list, possible PFD, conversion cost working, manpower requirement estimation etc.
11. Establishing Dr Reddys Syndet at Syndet plant Taloja
    1. Establishing this new product at syndet plant. Its viscosity was concern & Turbomixer was tripping. The process sequence changed, scrapper changed and ensured that the process commercializes.
    2. Thereafter black particles issue arised. This eliminated by identifying root causes, taking CCP route of FM elimination, eliminating/modification in steam and air flushing’s, MOC changing, chilldrum foreign matter elimination etc.
    3. The above actions along with maintenance and RnD team eliminated foreign matter in Dr Reddys syndet and new product established.
    4. For continuous run of this product, GMP of entire syndet plant is proposed.
12. **Taloja CTS work: started working on following projects after Feb2017 after transfer to Taloja**
13. Ewax capacity expansion
14. FAP cooling tower revamp
15. Hot air for CHP
16. C303/new SPD dirty cooling tower drift elimination
17. Crude glycine pitch disposal
18. Vacuum pump reliability
19. Taking of chilled water from VAM to GDP & Beads plant