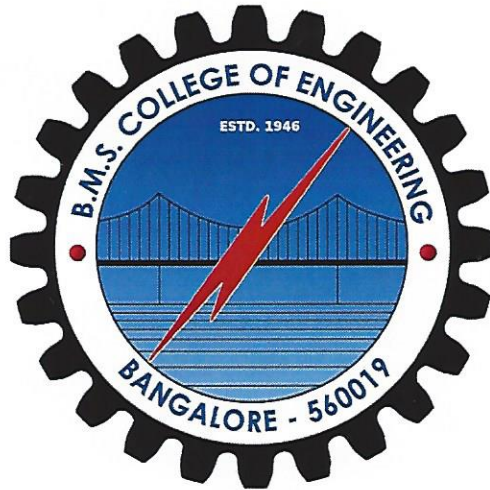


Altair

Innovation center in Informatics & Computing

at



Powered by

Altair SolidThinking Compose

Pavankumar CV

Managing Director

Altair



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Principal

BMS College of Engineering

Altair Engineering India Pvt Ltd

Altair is a leading provider of enterprise-class engineering software enabling innovation, reduced development times, & lower costs through the entire product lifecycle from concept design to in-service operation. Our simulation-driven approach to innovation is powered by our integrated suite of software which optimizes design performance across multiple disciplines encompassing structures, motion, fluids, thermal management, electromagnetics, system modeling & embedded systems, while also providing data analytics & true-to-life visualization and rendering.

Solvers & Optimization: Solvers are mathematical software "engines" that use advanced computational algorithms to predict physical performance. Optimization leverages solvers to derive the most efficient solutions to meet desired complex multi-objective requirements.

Modeling & Visualization: Tools that allow advanced physics attributes to be modeled and rendered on top of object geometry in high fidelity.

Industrial & Concept Design: Tools that generate early concepts to address requirements for ergonomics, aesthetics, performance, and manufacturing feasibility.

Internet of Things: Analytics tools that simplify data collection, visualization, exploration and analysis, including large volumes of data generated by sensors during in-service operations of physical products or through digital twin simulations.

High Performance Computing: Software applications that streamline the workflow management of compute-intensive tasks including solvers, optimization, modeling, visualization and analytics in fields such as Product Lifecycle Management (PLM), weather modeling, bio-informatics and electronic design analysis.

B.M.S. College of Engineering (BMSCE)

BMSCE is an autonomous engineering college in Basavangudi, Bangalore, India. The college, started in 1946 by B. M. Sreenivasaiah, was the first private sector initiative in technical education in India and is run by the BMS Educational Trust. It was affiliated with Visvesvaraya Technological University from 1998 to 2008, and became autonomous in 2008. BMSCE is located on the Basavangudi Area Bull Temple Road, diagonally opposite to the famous Bull Temple. Though a private engineering college, it is partially funded by the Government of Karnataka.

Altair India and BMSCE is interested to set up an Innovation center at BMSCE campus. Following are the core objective of this engagement and henceforth both Altair and BMSCE will work towards achieving below goals and deliverables

1. Objective of this Industry-Academia Interaction through Innovation Center on Informatics and Computing Technologies is based on SolidThinking Compose software solution. The goals include:
 - a. *Machine learning subroutines* with Compose.
 - b. Adding *Julia* as a supporting language for Compose.
 - c. Adding *TensorFlow* capabilities into Compose.
2. As part of this initiative, Commercial Grade Software is sold at Academic discounted price with no limitation. BMSCE will continue to invest and maintain software annually to keep the innovation center healthier and contributing its objective every year. Training material for Students and Faculty will be given to achieve the above objective.
3. Scope of the above initiative could be expanded in coming days on mutual consent and investment. Core objectives of COE can be expanded from the current OD based approach using compose to also 1D, 3D, connected and IOT aware system design leveraging packages like Activate, Embed, Carriots IOT/Analytics and other required tools from the overall HyperWorks software suite.
4. Altair while focusing on building competency on the tool, will also identify and work towards possibility of outsourcing development work to BMS Information Science and Engineering' department (IS Dept.) based on Faculty competency.
5. Altair to attempt on collaborative engagement in executing sponsored / internship projects on ST-Compose w.r.t math modelling and system based modelling thus giving students and faculty members opportunity and exposure on industry oriented practices, case studies, examples
6. BMS is being Autonomous Institution, IS department will work towards adding the intent of above technical topics as part of Syllabus through SolidThinking Compose. During this process Altair, will extend support in framing syllabus for Electives/topics based on our SolidThinking-Compose product capabilities. Mutually we will review the syllabus and suggests Industry related topics which in turn benefit the students.
7. Altair will facilitate in connecting to its Customer-HR with Dean placements, to facilitate possible recruitment of students from BMS IS department.
8. Altair will work towards facilitating a course framed on SolidThinking Compose. Upon developing Faculties. BMS IS Dept. & Altair can jointly certify the students through "Joint Certification Program"

9. Altair to facilitate access to BMS IS department faculties to Altair Events like Converge / AOC / ATC conference, this helps faculties to gain knowledge on industry software usage and hence facilitating in bringing down the knowledge gap between academia and Industries through syllabus finetuning and teaching methods.
10. Altair to facilitate in publishing technical papers/ journals from BMS Faculties in Altair technical conference / global technical form.
11. Work towards hiring Interns from BMS for Altair and DesignTech
12. Facilitate Lectures by Industry experts related to Math modelling and allied components of ST-Compose
13. Identify project-work with Industry focus and representative inputs for Students.
14. Train the trainers. – expose the faculty to emerging technologies. Though our outreach suggests the events such as SAE, Auto expo, design expo, testing expo for participation.
15. Provide themes and Design of competitions, tech events.
16. As part of Altair-Edu-Initiatives, Altair to Include one BMS Faculty in the “Academia and Industry relationship committee” of Altair. This committee will work towards bridging down gap between academia and industry relationship.
17. Based on above success story and tasting Altair commitment in elevating academia to a new height, BMS will extend support in creating more such Academia – Industry interaction initiatives at different department like Mechanical / Electrical -EEE / Electronics-ECE departments, based on broad offerings from HyperWorks buffet of software solutions.
18. Validity of this COE initiative will be for one year from the date of PO.