

SAEINDIA automotive SOP

Making Students Industry Ready

SAEINDIA

the largest affiliate of
SAE International

More than 30,000 members

Five sections

Northern

Eastern

Western

Southern

Bangalore



Global Society with nationwide presence

Activities of SAE INDIA

School
Children



Engineering
Students

Competitions
Training programs, SAETrek
Industry Visits, Expert speakers
Scholarships, Mentoring, Career Start

Practicing
Engineers

Lecture Meetings
Professional Development Programs
Seminars / Conferences
Networking Industry, Institutions and Academy

Life long engagement



Current Situation

Students have very little industry knowledge
Students get a shock when they join industry
Mis-trust between institutions and industry
Industry conduct own induction programs
Institutes also conduct orientation programs

Reasons

Institutions do not understand industry needs
Industry does not understand curriculum and it has undue expectations
Linkage between theory and practice unclear

Effect

It takes long time before engineers contribute
Many students leave their first companies in less than two years
Industry unable to plan their human capital leading to slow growth
Profitable growth of the country is affected

Solution from SAEINDIA

SAEINDIA automotive **SOP**

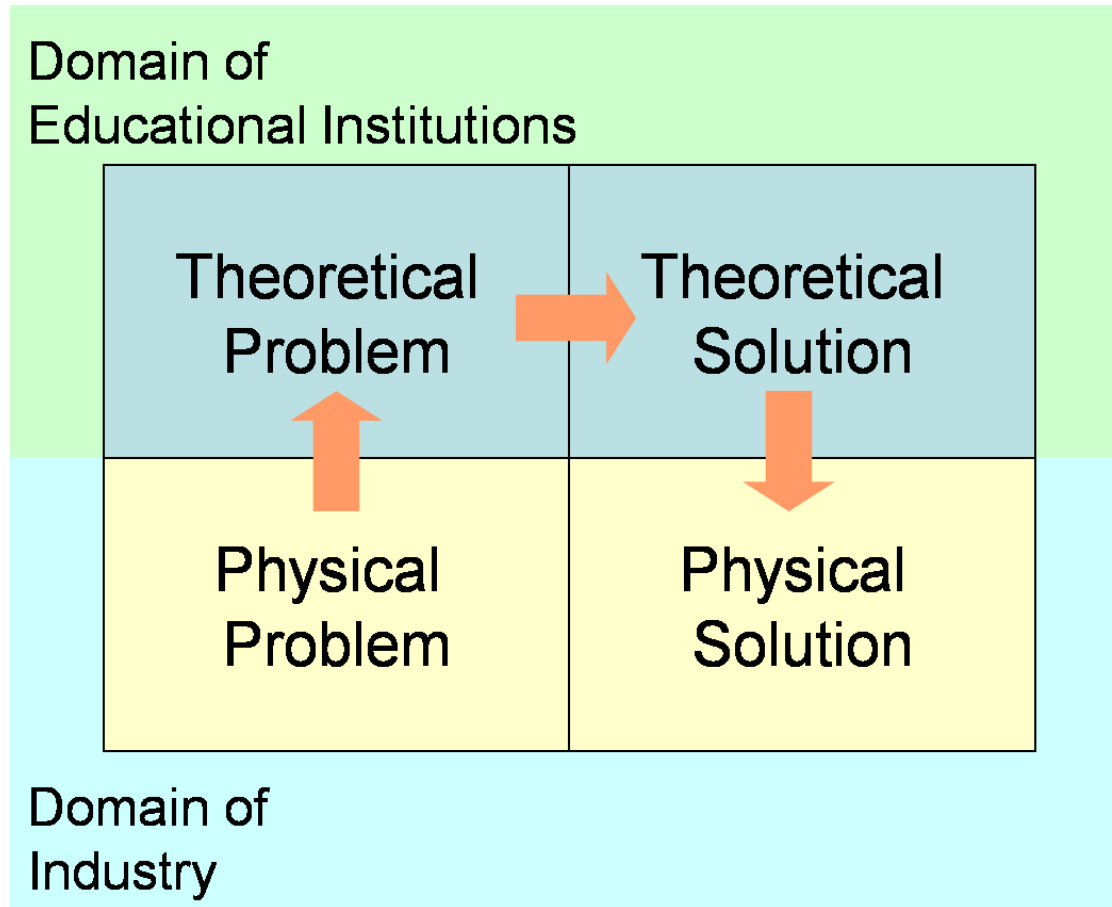
A complement to academic program introducing an effective problem solving process in collaboration with industry

Elements of aSOP

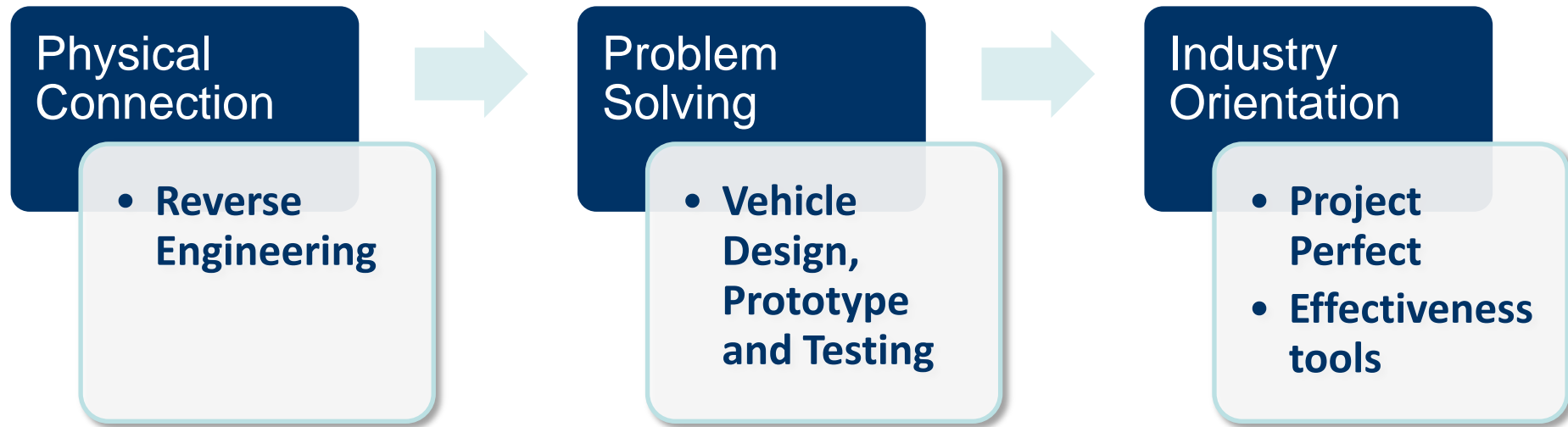
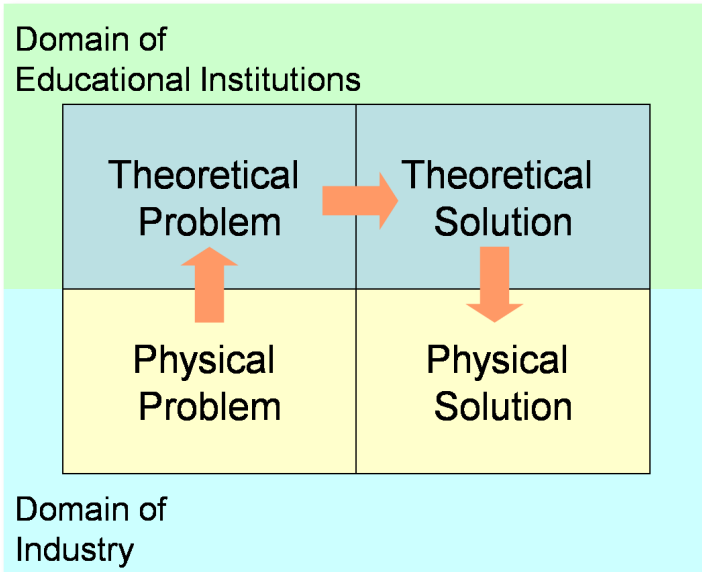
Creating a physical connection
Teaching an effective problem solving process
Introducing the industry
Keeping design as the context

Expected Benefits

High quality engineers ready to take the challenges of industry
Closer interaction between industry and institutions leading to higher cooperation
Human engine to propel India to 2020 vision



Connecting Domains of Academy and Industry



Three Step Process



No	Module	Timing
1	Reverse Engineering - Basic	3 sem vacation
2	Survey Indian Vehicles	4 semester
3	Reverse Engineering Complete Vehicle	4 sem vacation
4	Literature Survey of Technology Trends	5 semester
5	Vehicle Concept Definition	5 sem vacation
6	Sub-System Definition + Literature survey	6 semester
7	Design	6 sem vacation
8	Fabrication and Test	7 semester
9	Industry Project Preparation	7 sem vacation
10	Industry Project Execution	8 semester
11	Soft skills	8 sem vacation

11 modules spread over 5 semesters



Combination of

Instruct and Demonstrate

Observe and Discover

Focus on Self-Learning

Pareto principle

Cover only subjects that are used 90% of the times in industry

Industry Volunteers as Coaches

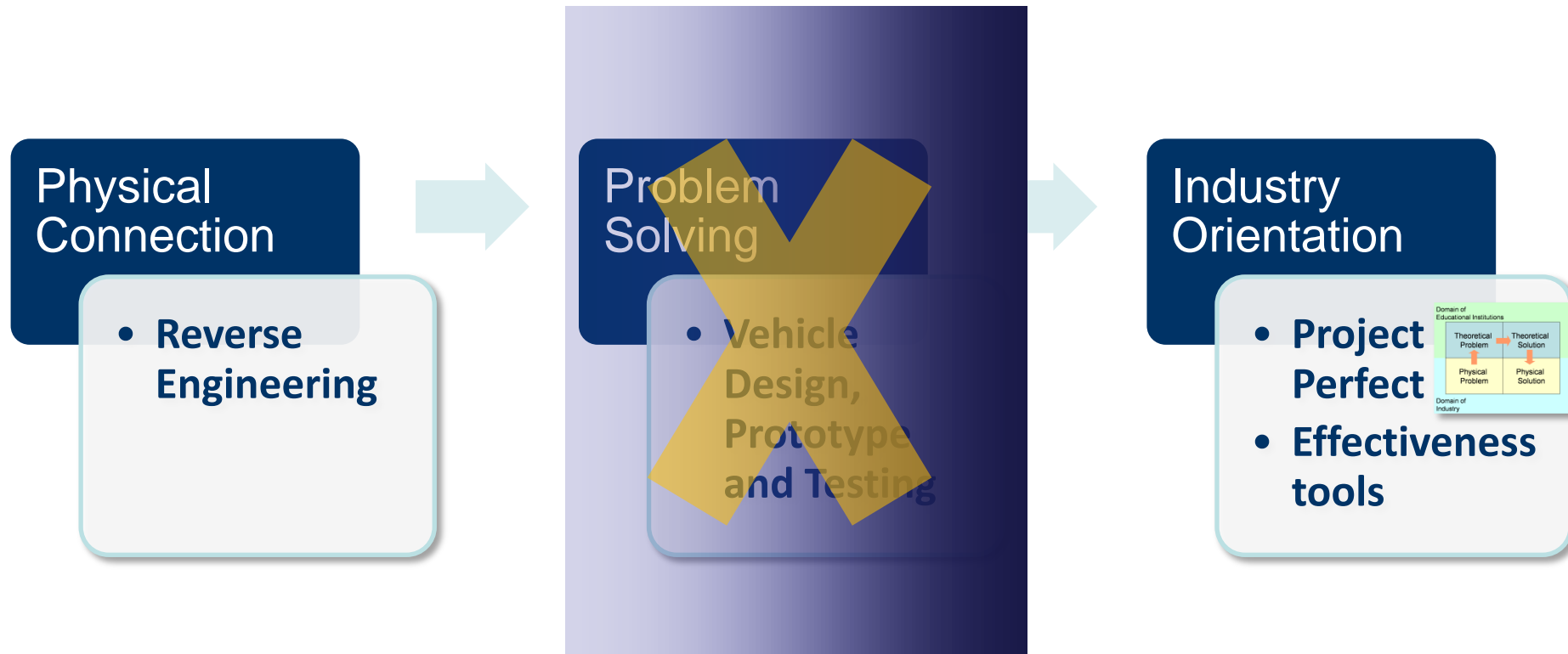
Trekking

Connection to nature and physical fitness

Balanced, Enjoyable but Demanding



For final year students,
Based on request from CareerStart Employers
3 Modules (nos 1, 10 and 11) over the last semester
Problem Solving embedded in Project Perfect



A compromise, but still offers significant learning opportunity



No	Module	Timing
1	Reverse Engineering – Basic + Project Preparation	7 sem vacation
2	Industry Project Execution	8 semester
3	Soft skills	8 sem vacation

3 modules spread over last semester



Regular aSOP:

Total: Rs 42,000

Student Contribution: Rs 30,000

Industry Contribution: Rs 12,000

Rapid SOP:

Total: Rs 20,000

Student Contribution: Rs 10,000

Industry Contribution: Rs 10,000

Contribution from Industry as well as students

Let us work together to achieve



India Vision 2020