



valar (வளர் - to grow) is a cloud based platform for simplifying all kinds of accreditation processes for Indian educational institutions.

# valar

AN OUTCOME  
BASED EDUCATION  
**(OBE)** PLATFORM

## Why an OBE software

- ✔ Simplifies the preparation for accreditation
- ✔ Collects and analyzes data efficiently
- ✔ Easily calculate complex CO and PO attainments
- ✔ Continuously monitors students progress
- ✔ Performs feedback based corrective measures
- ✔ Tracks each student's event participation and achievements
- ✔ Reduces the burden on staff, allowing them to focus on academic activities
- ✔ Tracks research and manage faculty profiles
- ✔ Facilitates paperless documentation

## Features

- ✔ Choice based credit system (CBCS) and non-CBCS
- ✔ Customizable question paper formats and CO wise mark collection
- ✔ NBA, NAAC, and NIRF compliance
- ✔ Customizable assessment policies
- ✔ Detailed reports generation
- ✔ Simple and responsive ( mobile friendly ) UI
- ✔ White - Labeling
- ✔ Cloud hosted with high availability and scalability
- ✔ Future ready: Modern development practices and technical stack
- ✔ Efficient and economical
- ✔ Extensible as per college needs

## Other Features

- ✔ Customizable role based access control
- ✔ Day order timetable and weekly schedule
- ✔ Attendance tracking
- ✔ Mentor-mentee support
- ✔ Tuition fee, exam fee, and condonation fee collection
- ✔ Faculty performance evaluation

## Dashboard

The dashboard, titled 'Valar', shows a grid of 30 application tiles. Each tile includes an icon, a title, and a brief description of the function. The tiles are arranged in a 3x10 grid. The top right corner indicates the user is logged in as 'admin'.

Icon	Application Name	Description
🎓	Role manager	Create roles to manage permissions and access to apps
👤	User manager	Manage student and staff users, associate roles for them
📖	Batch manager	Create batches, manage courses applicable for batches
📝	Assessment manager	Define exam pattern and question paper formats
📅	Semester manager	Create semester, manage applicable courses and their exams
👤	Admin Course Registration	Start/Stop online course registration, enrol courses for students
📄	Course Manager	Create courses and their outcomes, manage course articulation matrix
📊	Programme outcome manager	View programme outcome definitions
📋	Course exit survey manager	Start/Freeze course exit survey for students
★	Credit Distribution	View student's semester/total credits with respect to the credit distribution table
🕒	Timetable manager	Create global timetable, set active timetable, clone existing timetable
📅	Course schedule manager	Create multiple schedules for courses, map course handling staff users for schedule
📅	Calendar	View working and holidays
📄	Course exit survey	View course exit survey feedback from students
👤	Attendance reports	View attendance reports for course schedules
📊	Course attainment	View course wise, schedule wise, batch wise course outcome (CO) attainment
👤	Student manager	View student details, switch student's current batch
👥	Bulk registration	Manually enrol a set of courses for a group of students
📊	Programme attainment	View programme outcome attainment for various batches
📊	Attainment manager	Manage attainment weightages for computing programme outcome (PO) attainment
📄	Fees report	View reports of pending fee demands and disburse payments
📄	Fee credits	View fee advances and their credit adjustments
📄	Account head manager	Manage account heads
📄	Fee structure manager	Manage fee structures
📄	Tuition fee structure manager	Manage tuition fee structure mapping templates
📄	Tuition fee manager	Generate, publish tuition fee demands
📄	COE course mapping	Manage COE related aspects of course
📄	Registration closure	View, manage batch registration closure status
📄	COE fee structure manager	Manage COE fee structures
📄	COE fee manager	Generate, publish COE fee demands
📄	Online transaction manager	View, re-open online transactions
📄	Student record repository	View student information
📄	Student account closure	Generate, publish student state
📄	Tutor manager	Tutor Student mapping, view student academic details
📄	Condonation fee structure manager	Manage condonation fee structures
📄	LoA manager	Generate, publish Condonation fee demands

# Course Master

Create and manage courses

Map CO-PO and weightages at one place

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14CE280 Survey Lab I : Outcomes BACK TO LIST

Outcome	Default		Description
	Expected Proficiency	Expected Attainment	
CO1	80	90	Select the appropriate surveying tools in the field
CO2	80	90	Measure, book and plot the details of the given terrain.
CO3	80	90	Perform the required adjustments as well as compensate the errors in the field measurements.
CO4	80	90	Locate the field position on the plan or vice versa
CO5	80	90	Locate the elevation of given points with respect to a given datum.
CO6	80	90	Plot LS and CS of the given terrain

Course articulation matrix with programme outcomes (UG Programme Outcomes)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	M	L	L	L	-	S	-	-	-	L	-	-
CO2	S	L	L	S	-	S	-	S	-	L	-	-
CO3	S	S	S	S	-	-	-	S	-	L	-	-
CO4	S	S	S	S	-	S	-	-	-	L	-	-
CO5	S	S	S	S	-	S	-	-	-	L	-	-
CO6	S	S	S	S	M	S	-	-	-	S	-	-

# Calendar

Annual academic planner

Facilitates pre-planning and intimation to all users



# Course Attainment

Data visualization of attainments

Micro level analysis

Graphical notations for identifying gap



# Course Attainment

Overall CO attainment calculation including surveys

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2020-21 Odd: 14CEPF0 Prestressed Concrete: Proficiency Breakdown BACK TO LIST

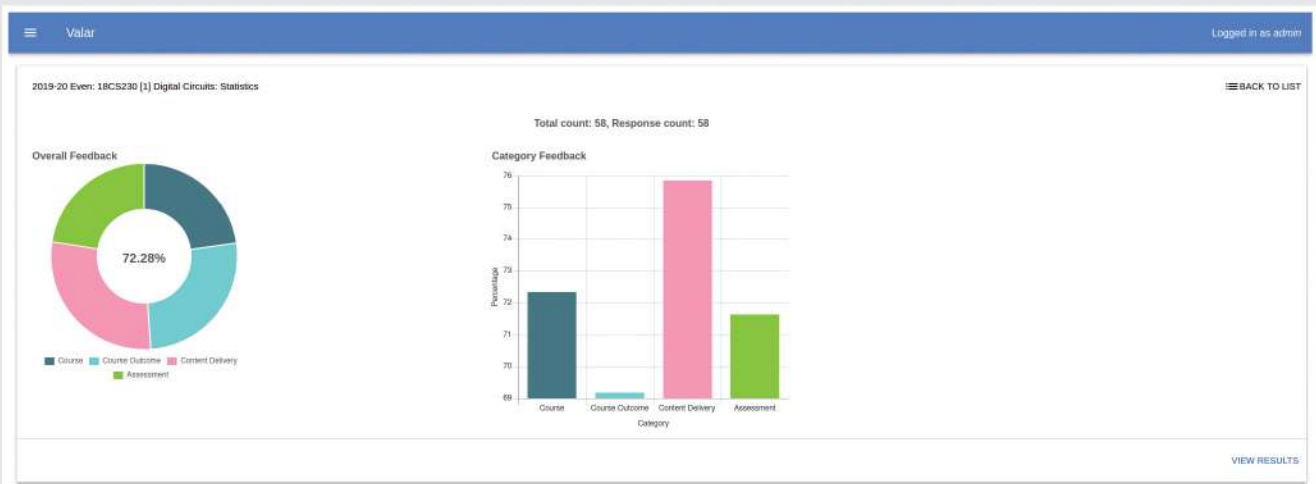
Total count: 142

Course outcomes	Internals		Terminal exams		Survey		Overall proficiency
	Actual	60%	Actual	30%	Actual	10%	
CO1	92.49	55.49	78.76	23.63	70.25	7.03	86.15
CO2	43	25.8	78.76	23.63	69.72	6.97	56.4
CO3	45.69	27.41	78.76	23.63	69.54	6.95	58
CO4	88.75	53.25	78.76	23.63	69.72	6.97	83.85
CO5	58.2	34.92	78.81	23.64	69.89	6.99	65.55
CO6	69.59	41.75	78.81	23.64	70.07	7.01	72.41
CO7	98.9	59.34	78.81	23.64	70.25	7.03	90.01

VIEW STUDENT PROFICIENCIES

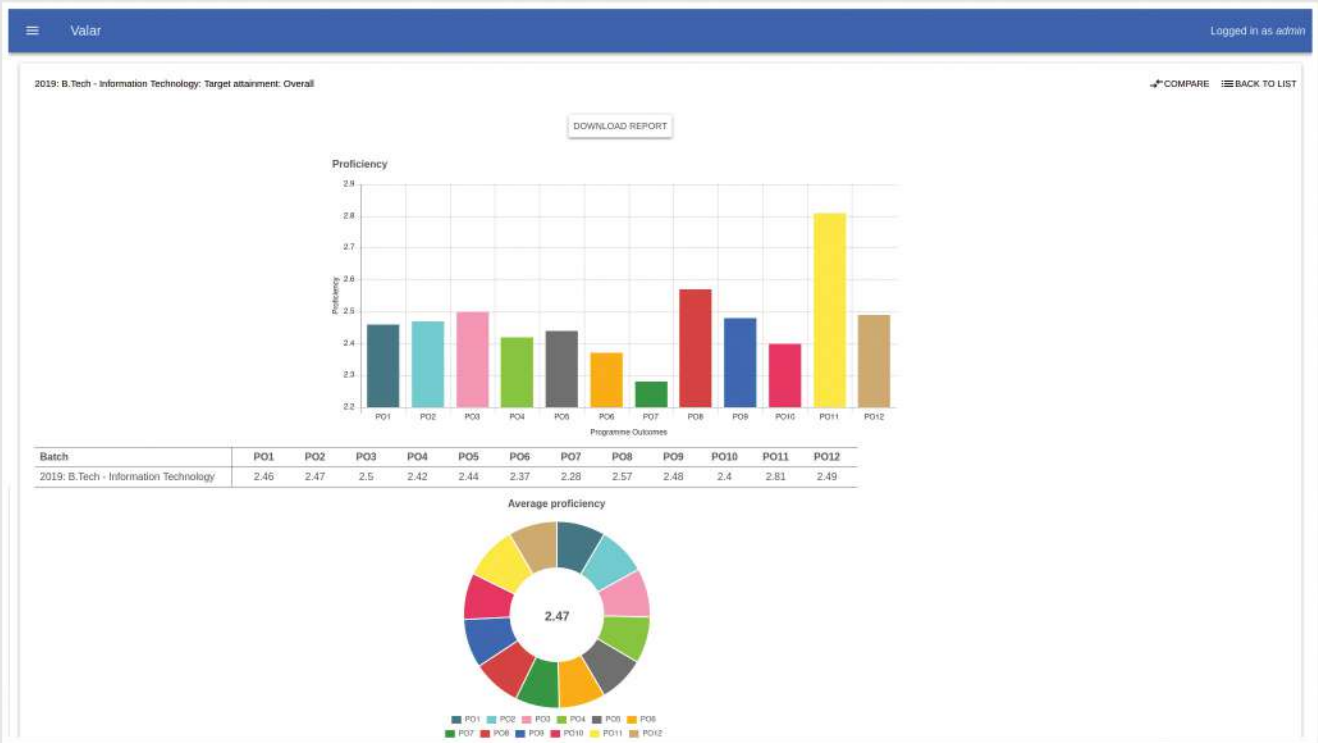
# Course Exit Survey

- Conduct surveys at any time, anywhere
- Overall analysis in a single page
- Course exit survey for individual subjects
- Course statistics



## Program Outcome Attainment

- ✔ Bar graph representation of PO attainment
- ✔ Single pie-chart representation of whole batch
- ✔ Target and attainment comparisons



- ✔ Overall PO attainment and course wise consolidation for every batch

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2019: B.Tech - Information Technology: Target attainment: Course breakdown BACK TO LIST

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17 unaccounted courses:  View

Select course  X  
Filter course

Up to date: Yes

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
18CEGB0 BUILDING SERVICES	2.47	2.5	2.59	-	2.45	-	2.36	2.36	3	2.27	1.26	1.26
18CEGG0 Entrepreneurship Developm...	2.99	2.99	3	-	-	-	-	-	2.97	2.97	2.95	2.9
18CH190 Chemistry Laboratory	2.83	2.82	2.79	-	-	-	2.79	-	2.77	-	-	-
18CHAA0 Environmental Science	2.77	2.4	3	3	3	3	2.4	3	3	3	3	-
18CHAB0 CONSTITUTION OF INDIA	2.88	2.88	-	-	-	2.88	-	2.88	-	2.88	-	-
18CHAC0 Essence of Indian Knowledge	1.41	1.41	-	-	-	1.41	1.41	1.41	1.41	1.41	-	1.41
18CHC30 Chemistry	2.52	2.67	2.39	3	-	-	2.25	-	-	-	3	-
18CHFA0 BIOLOGY FOR ENGINEERS	2.67	2.75	3	-	-	-	-	-	-	-	-	-
18CHF80 MATERIALS FOR ENGINEE...	2.21	2.22	2.25	-	-	-	-	-	-	-	-	-
18CEGA0 CONSUMER ELECTRONICS	2.85	2.87	2.94	-	-	-	-	-	-	-	-	-
18EGC00 TELECOMMUNICATION SY...	2.92	2.94	2.95	2.91	-	-	-	2.93	2.92	2.92	-	2.93
18EEGA0 RENEWABLE ENERGY SO...	1.71	1.78	2.11	-	-	-	-	1.61	-	1.61	-	-
18EEGF0 ENERGY CONSERVATION ...	2.24	2.24	2.22	2.22	-	-	-	2.25	-	2.25	-	-
18EG140 English	-	-	-	-	-	-	-	-	-	2.07	-	2.22
18EG170 English Laboratory	-	-	-	-	-	-	-	-	-	1.8	-	2.08
18EG460 PROFESSIONAL COMMUNI...	2.96	-	-	-	-	-	-	-	2.99	2.97	-	2.97
18EGFA0 COMMUNICATIVE ENGLISH	-	-	-	-	-	-	-	-	-	2.03	-	2.03
18ES150 Engineering Exploration	2.82	2.81	2.8	-	-	-	-	-	-	-	-	-
18ES290 Lateral Thinking	1.47	1.24	0.86	0	-	0	-	2	0.75	0.75	-	1.2
18ES390 Design Thinking	3	3	3	3	3	3	3	3	3	3	3	3
18ES590 SYSTEM THINKING	2.65	2.69	2.85	-	3	2.89	2.89	2.89	2.85	2.89	2.95	2.88
18IT1C0 API Development and Deploy...	2.65	-2.62	2.59	2.31	2.65	-	-	2.31	2.31	2.31	2.31	2.65
18IT1D0 STREAM ANALYTICS	1.2	1.4	1.56	3	1.4	-	-	3	3	3	-	1.2
18IT220 Problem Solving using Comput...	2.85	2.87	2.87	-	2.85	-	-	3	3	3	3	3

## PO attainment through CO (Individual Component)

- ✓ Detailed micro analysis of CO - PO relation

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2019: B.Tech - Information Technology: Target attainment: Course outcome breakdown BACK TO LIST

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17 unaccounted courses:  View

Select course:

Filter course:

Up to date: Yes

Course	Course outcomes	Obtained proficiency	PO1		PO2		PO3		PO4		PO5		Weightage
			Weightage	Weighted proficiency	Weightage	Weighted proficiency	Weightage	Weighted proficiency	Weightage	Weighted proficiency	Weightage	Weighted proficiency	
18CEGB0 BUILDING SERVICES	CO1	0.42	2	0.84	1	0.42	-	-	-	-	-	-	-
	CO2	1	2	2	1	1	-	-	-	-	-	-	-
	CO3	1	3	3	2	2	1	1	-	-	-	-	-
	CO4	1	3	3	2	2	1	1	-	-	1	1	-
	CO5	0.45	3	1.35	2	0.9	1	0.45	-	-	1	0.45	-
	CO6	1	3	3	2	2	1	1	-	-	1	1	-
18CEGG0 Entrepreneurship Developm...	CO1	0.84	-	-	-	-	-	-	-	-	-	-	-
	CO2	1	3	3	2	2	-	-	-	-	-	-	-
	CO3	0.98	2	1.96	1	0.98	-	-	-	-	-	-	-
	CO4	1	3	3	2	2	1	1	-	-	-	-	-
	CO5	1	3	3	2	2	1	1	-	-	-	-	-
	CO6	1	3	3	3	3	2	2	-	-	-	-	-
18CH190 Chemistry Laboratory	CO1	0.9	3	2.7	3	2.7	2	1.8	-	-	-	-	-
	CO2	0.85	3	2.55	3	2.55	2	1.7	-	-	-	-	-
	CO3	0.97	3	2.91	3	2.91	2	1.94	-	-	-	-	-
	CO4	1	3	3	2	2	-	-	-	-	-	-	-
	CO5	1	3	3	3	3	2	2	-	-	-	-	-
18CHAA0 Environmental Science	CO1	1	2	2	-	-	-	-	-	-	-	-	1
	CO2	1	2	2	-	-	-	-	-	-	-	-	1
	CO3	1	2	2	2	2	-	-	-	-	1	1	2
	CO4	1	2	2	-	-	1	1	1	1	1	1	2
	CO5	1	1	1	-	-	-	-	-	-	-	-	-

## Course Registration

- ✓ Centralised / Decentralised course registration by students
- ✓ Hassle-free course allotment
- ✓ Course and faculty selection
- ✓ Adherence to all possible curriculums like choice based, fully flexible, etc.

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Admin course registration: 2021-22 Even: Courses BACK TO LIST

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Reg. number: 19CD40

Current status: Registration open

REGISTRATION CATEGORIES

Regular and RC registration

Credits enrolled for 19CD40 KALASELVI S: 26

<p><b>18CS610 - COMPILERS (Credit: 3)</b> ✓</p> <p>Core Courses</p> <p>Registered schedule: 1 Hall: 105 Staff details: Dr.M.K.Kavitha Devi</p> <p><input type="button" value="UNREGISTER"/></p>	<p><b>18CS620 - WEB PROGRAMMING (Credit: 3)</b> ✓</p> <p>Core Courses</p> <p>Registered schedule: 1 Hall: 105 Staff details: M.Vijayakrishna</p> <p><input type="button" value="UNREGISTER"/></p>	<p><b>18CS630 - ARTIFICIAL INTELLIGENCE (Credit: 3)</b> ✓</p> <p>Core Courses</p> <p>Registered schedule: 1 Hall: 105 Staff details: M.Suguna</p> <p><input type="button" value="UNREGISTER"/></p>	<p><b>18CS670 - WEB PROGRAMMING LAB (Credit: 1)</b> ✓</p> <p>Core Courses</p> <p>Registered schedule: 2 Hall: 105 Staff details: 1. M.R.Pankumar 2. Dr.G.S.R.EmiSelvam</p> <p><input type="button" value="UNREGISTER"/></p>
<p><b>18CS680 - ARTIFICIAL INTELLIGENCE LAB (Credit: 1)</b> ✓</p> <p>Core Courses</p> <p>Registered schedule: 1 Hall: CSC-L3 Staff details: 1. Dr.K.Sundararaman 2. C.Sarithya</p> <p><input type="button" value="UNREGISTER"/></p>	<p><b>18CS6A0 - DATA SCIENCE USING PYTHON (Credit: 3)</b> ✓</p> <p>Engineering Science</p> <p>Registered schedule: 1 Hall: 105 Staff details: 1. M.Sivakumar 2. Abinaya S 3. R.LoganathanSaranya</p> <p><input type="button" value="UNREGISTER"/></p>	<p><b>18CHF80 - MATERIALS FOR ENGINEERS (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> Dr.V.Venkatesh (Slot - 1) (Hall: MECT-L2) (Available: 4) conflicts with 18CS630 - 1</p> <p><input type="radio"/> Dr.R.Kodi Pandyan (Slot - 2) (Hall: MECT-L4) (Full) conflicts with 18CS630 - 1</p> <p><input type="button" value="REGISTER"/></p>	<p><b>18CHF00 - BATTERY TECHNOLOGIES (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> S.Balay (Slot - 1) (Hall: A04) (Full) conflicts with 18CS630 - 1</p> <p><input type="radio"/> Dr.A.Ramalingam Chandrasekar (Slot - 2) (Hall: A05) (Available: 20) conflicts with 18CS630 - 1</p> <p><input type="button" value="REGISTER"/></p>
<p><b>18BEF9A0 - COMMUNICATIVE ENGLISH (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> Dr.S.Pavan + 1 more (Slot - 1) (Hall: A06) (Available: 12) conflicts with 18CS630 - 1</p>	<p><b>18MAFA0 - ALGORITHMIC GRAPH THEORY (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> Dr.A.Anitha (Slot - 1) (Hall: ECE-L1) (Full) conflicts with 18CS630 - 1</p>	<p><b>18MAFB0 - FUZZY SETS AND CLUSTERING (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> P.Victor (Slot - 1) (Hall: IS1) (Available: 60) conflicts with 18CS630 - 1</p>	<p><b>18MAFD0 - NUMERICAL LINEAR ALGEBRA (Credit: 3)</b></p> <p>Foundation Elective</p> <p><input type="radio"/> S.P.Surya Pratha + 1 more (Slot - 1) (Hall: IS1) (Available: 25) conflicts with 18CS630 - 1</p>

## Semester Creation

- Day order and weekly schedule support
- Examination control
- Dynamic assessment policies

The screenshot displays the 'Manage semesters' interface in the Valar system. A table lists various semesters with columns for Semester, Periods, Weekly holidays, Follows day order, Starting date, Number of day order, Starting day order, Active batches, and State. An 'Add Semester' modal window is open, allowing users to configure a new semester with fields for Year, Semester, Periods per day, Holidays per week, Follows day order, Starting date, Number of day order, and Starting day order.

## Timetable

- Quicker time table creation
- Individual timetable for faculty and student
- Efficient workload management
- Easy tracking of class schedules

The screenshot shows the 'Electronics and Communication Engineering' timetable in the Valar system. It features a grid for three departments: ECE-L4, B08, and A04. Each department's timetable is organized by days (Day 1 to Day 5) and periods (1 to 8). Courses are represented by colored blocks with course codes and credits. A tooltip for 'BEC270 (3) Circuits and Devices Laboratory' provides details about the staff (VR Venkatesubramani, Dr.S.Md Mansoor Fozmi) and the schedule number (3). A note at the top right of the grid states 'This timetable cannot be modified further.'



Software used for educational processes should be easily adaptable for changing policies without compromising the historical data. Valar comes from more than 15 years of experience with such systems. Valar is built using time tested technology and practices to enable longevity.

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## About us

HiPro IT Solutions provides solutions based on Open Source technologies and standards. Started in 2008, it has vast experience in building and running large scale business applications using modern development practices. Apart from education, HiPro also provides solutions in domains such as Industrial automation, Automotive, and Embedded systems.

### Get in Touch

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