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#### 1. PREAMBLE

Motivated by the desire to build a strong base for practical problem solving and hands on skills amongst the students, the Chairman of Sahyadri College of Engineering & Management, Dr. Manjunath Bhandary initiated the Sahyadri Project Support Scheme (SPSS). Through this scheme, the department of Projects and Funding provides financial and academic support for engineering student projects.

The SPSS scheme is the novel paradigm and first of its kind amongst technological universities in India created by Sahyadri College of Engineering & Management. While most of the engineering projects in the engineering colleges and universities are generally conducted as academic final year projects or club projects, SPSS is quite different wherein students execute non-academic engineering projects for the sake of engineering and not obtaining academic scores.

"SPSS Project scheme is an initiative to create interaction amongst the students and improve their analytical thinking abilities to apply engineering concepts in real world. Here at Sahyadri, We not only want the students to acquire only theoretical knowledge but also practical handson skills where they are fully involved in engineering."

Dr .Manjunath Bhandary

Chairman, Bhandary Foundation

"SPSS Project is an initiative to get hands-on experience for students in application of engineering concepts"

Dr.U.M. Bhushi

Principal, Sahyadri College of Engineering & Management

"Project based learning is the latest trend in outcome based education and SPSS is one of the novel approaches to combine cognitive analytical skills with psychomotor skills in engineering."

Dr.Rathishchandra.R.Gatti

SPSS-Head, Sahyadri College of Engineering & Management

### 2. SUMMARY

**SPSS 2014-15 – Sahyadri Project Support Scheme** was commenced in the year 2014-15. SPSS was to support the students in order to show their capability and enhance their intellectual level. The vision was to inculcate projects based learning new methodology in the present teaching arena.

Around **58** projects were successfully completed during the academic year 2014-15. The sanctioned money for funding was Rs.6, 45,000.00 out of which Rs. 5,22,850 was spent exclusively for project expenses.

SPSS Project programs were executed in the **Techvision 2015** program held in the Sahyadri College campus. These projects were well received and it was a success. The details of the SPSS 2014-15 are as follows:

#### SPSS 2014-15 STATISTICS

Branch	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total			
ME	5	5 3				
CV	4	4 -				
CSE	2	-	2			
ISE	2	1	3			
ECE	3	3	7			
	Total ( 2 <sup>nd</sup>	/3 <sup>rd</sup> and 4 <sup>th</sup> year Projects)	24			
	1 <sup>st</sup> )	/ear	30			
	PG Pr	ojects	4			
	Interdiso	ciplinary	1			
	Grand	I Total	58			

## SPSS 2014-15 (DETAILS OF THE PROJECT)

Sr.		Gr. Leader						ш	Total
No.	Project Title		Yr	Branch	Total amt	l inst	ll inst	inst	Amount
1	Building a Radio Controlled plane	Harsha R Bhat	I	ME	5,000	2,500	1,500	1,000	5,000
2	Human Sensing Lighting System	Mohammad Shamsan	1	ME	5,000	2,500		)	2,500
3	Autonomous Underwater Vehicle	Ajay Raj M P	I	ME	5,000	2,500			2,500
4	Vehicular Produced wind Energy	Muhammad Asfan S	1	ME	5 000	2 500			2,500
	Machinability of Randomly Oriented Glass Fiber Reinforced Epoxy Plastic (RO- GFRP) Composite Laminates	Rohan A Shet			0,000	2,000			9,500
5	Development of Mathematical Models for Residual Strength on the Basis of Experimental Observations by Drilling	Manoj M.Rao		ME	9,500	3,000	4,000	2,500	9,500
7	A Comparitive Study of Wear Behaviour of SiC Glass Epoxy Composites with Asbestos Material in Automotive Brake Pads Applications	Chetan H Gadad		ME	8,950	3.000	4.000	1.950	8,950

	Design & Fabrication of Hydramp	Adarsh Prabhu							8,445
8		6	П	ME	8,455	3,000	4,000	1,455	
9	Android Controlled Quadcopter AMIS	Mohiyuddin Al Mushin	11	ME	8,445	3,000	4,000	1445	8,445
	Design & Fabrication of Foundry Sand Reconditioner						C	$\mathbf{S}$	17,500
10		Dhanush Achar		ME	23,000	7,500	10,000		
	Design & Development of Areca nut Tree Climber with Cutter & Atomizer				Q				17,500
11		Tharanath	Ш	ME	23,000	7,500	10,000		
	Design and manufacture of embeded machine for machining and household	Shabir Singh			0				35,000
12		onidadin olinigin	III	ME	40,000	15,000	20,000		
13	Shoppon	Praful P	I	Civil	5,000	2,500	1,500	1,000	5,000
14	E-Sahyadri	G. Anoosha		Civil	5 000	2 500	1 500	1 000	5,000
14	Circular Bot of Sahyadri	Mohammad Maashuk			0,000	2,000	1,000	1,000	5,000
15	$\langle \rangle$		Ι	Civil	5,000	2,500	1,500	1,000	
C	Fuzzy Logic Based Water Quality Assessment	Sasha Rai P							17,500
16			1	Civil	25,000	7,500	10,000		
17	Behavoiur of steel reinforced concrete with partial replacement of coarse aggregate	Fairunnisa Kunnil		Civil	10.000	3.000	4.000	3.000	10,000

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18	Rubcrete	Jeethan Grinal Rodrigues		Civil	10.000	3 000	4.000	3 000	10,000
10	Bascal bridge	Upendra Kushwaha			10,000	3,000	4,000	3,000	10,000
19			11	Civil	10,000	3,000	4,000	3,000	
20	Analysing techniques for earthquake resistant buildings and presenting the model	Rangeel R		Civil			6	Ŕ	
21	Aqua Robot	Prathviraj Shetty	1	CSE	5,000	3,500	1,500	7	5,000
	Controlling Electronic Device using Smartphone App	Sanath R			Q				5,000
22		Kashyap	Ι	CSE	5,000	2,500	1,500	1,000	
	To Make a Working Model of Flying Hovercraft				0				5,500
23		Linford Royan		CSE	5,000	2,500	3,000	-500	
24	Water Level Indicator	Shwetha Kumari	-	CSE	5,000	2,500	1,500	1,000	5,000
25	Hovercraft	Kiran Kedilaya		CSE	5 000	2 500	1 500	1 000	5,000
26	Gesture Control	Sharanya		CSE	5,000	2,500	1,500	1000	5,000
27	RC security plane	Ravi Yadav	1	CSE	5,000	3,500	1,500		5,000
28	Edge detector	Prathiksha Bhat	I	CSE	5,000			5000	5,000
29	Bus Alerting System	Lavanya K	I	CSE	25,000	7,500	10,000		17,500
30	Developing a novel technique for 4D Face recognition under pose variation	Roshin Varghese	I	CSE	25,000	7,500	10.000		17,500

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	An Advance Food Ordering System for								2,500
31	Sanyaun	Srithuthi K A	Ι	CSE	5,000	2,500			
32	Care Care -2 Tier System	Shwetha Shri	I	CSE	5,000	2,500			2,500
33	Power Generation by Utiliztion of Vehicular Produced Wind Energy	Dency Ben Dadhaniya	1	CSE	5,000	2,500		)	2,500
34	Touch screen camera using raspberry PI	Aysha Mahfooza	- 11	CSE	10,000	3,000	4,000	3,000	10,000
35	A revolutionary approach in the voting process for the nation	Aathira Raj		CSE	10,000	3,000	4,000	3,000	10,000
26	To Develop and Evaluate a Novel ARM+DSP Based Recognition Model using Composite Sketches for Identification of Most Wanted Criminals	Suhas			25.000	7.600	10.000		17,500
30	Green House	Chandraprakash	1	ISE	5,000	2,500	1,500	1,000	5,000
<b>C</b> 38	SMS- Say no to Mobile in Sahyadri ( Classroom)	Akshay Samanth	Ι	ISE	5,000	2,500			2,500
39	Digital Letter Box	Anuja Kumari	1	ISE	5,000	2,500			2,500
40	Maze Bot	Akhil	11	ISE	10,000	3,000	4,000	3,000	10,000

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	RC Flight Control	Gouse Khan M.S							10,000
41			11	ISE	10,000	3,000	3,000	4,000	
	Wanted Criminals by								17,500
	using i.MX6 Qseven								
	Development Board	Doohmi Doi							
42		Rashini Rai	Ш	ISE	25,000	7,500	10,000		
	Developie o diishte								47 500
	Developing a Hignly								17,500
	Biomotric System on							< 2	
	DSP+ARM Processor								
	Using 3D Face and								
	Finger Knuckle Images	Ashwitha K							
40	5	Shetty			25.000	7 500	10,000		
43			1	ISE/PG	25,000	7,500	10,000		
	Automatic Turning on								5,000
	and off of Electric								
	Device Using	Douithroo D							
	Smartphone App	Shetty							
44		,	I	ECE	5,000	2,500	1,500	1,000	
	Autonomous								5.000
	Navigation								-,
45		Amith B Shetty		ECE	5 000	2 500	1 500	1 000	
43				LOL	3,000	2,300	1,500	1,000	
	Colour Detection	Varun K Bangera							5,000
46		Langela	-	ECE	5,000	2,500	1,500	1,000	
	Wireless Control	Rajeshwari Rao							5 000
		н							0,000
47				ECE	5,000	2,500	1,500	1,000	
	Design and Implement								2,500
	Floor Mopping Robot								
	Equipped with a								
	Vacuum Cleaner	Prathiksha Bhat							
48	$\langle \rangle \rangle$	T Tatrikona Bhat	I	ECE	5,000	2,500			
C	Developing a Highly								17 500
	Secured Multimodal								17,000
	Biometric System on								
	DSP+ARM Processor								
	Using 3D Face and								
	Finger Knuckle Images	Ashwitha K							
49		Shetty	I	ECE	25,000	7,500	10,000		

	To build an autonomous "All								10,000
50	Terrain Vehicle"	Gerald K Antony	Ш	ECE	10,000	3,000	3,000	4,000	
	RC plane for Aerial							,	10,000
51	surveillance	Jitesh K	П	ECE	10,000	3,000	3,000	4,000	<
	Autonomous RC Flight control system	Prashanth						Q	3,000
52			П	ECE	10,000	3,000			
	C6 Integra DSP + ARM Processor Based Low Resolution and illumination Insensitive								17,500
53	Recognition	Ashwini G. Pai	Ш	ECE	25,000	7,500	10,000		
	Developing a Novel Technique to Recognize Partially Occluded Images on a Dual ARM Cortex Core with FPGA	Chaothal Das K			0				13,000
54		Sheethal Rao K	Ш	ECE	15,000	5,500	7,500		
55	A jacket which warms the body @ low temperature	Vishnuprasad P V		505	00.000	5 500	10,000		15,500
55			111	ECE	20,000	5,500	10,,000		05.000
56	Intuitive spy drone	Fadil Luquman	IV	ID	50,000	15,000	20,000		35,000
57	Designing of Novel Algorithms for user dependnet feature selection for Biometrics	Tushar	1	MCA/PG		2,000			2,000
58	Data Encryption based approach to handle privacy and security issues in RFID technology	Rakshith K M	I	MCA/PG		2,000			2,000

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Total	San ->	nctioned	6,45,850	Actu	al Spei	nt - <del>→</del>	5,22,850

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