Transforming Society by Creating Innovators through Skill & Research Focussed Education – A Case Study of Srinivas University

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ABSTRACT

Innovation is considered as the lifeblood of higher education institutions and universities in order to survive, sustain, differentiate, monopoly, and develop in their industry. It is postulated that the core Innovations of universities should be focussed in five areas to develop core resources which include physical infrastructure, digital infrastructure, innovative teaching-learning infrastructure, intellectual property infrastructure, emotional infrastructure, and network infrastructure. It is also postulated that the Skill focussed education model contributes to the creation of innovative teaching-learning infrastructure and Research oriented education model contributes to the intellectual property infrastructure of the organization. This paper highlights how a new innovative private university can plan and implement strategies to grow in its lifecycle of survival stage, sustainability stage, differentiation stage, monopoly stage, and developed stage by means of skill enhancement through industry integration model and research oriented curriculum based education model by considering Srinivas university as a case study. This case study elaborates how Srinivas university implements its strategy aggressively to grow as most innovative skill and research focussed education system in India with an objective of transforming society by creating innovators.

Keywords: Innovations in HIE, Skill & research focussed, Industry integration in HIE, Private university, Srinivas university.

1. INTRODUCTION :

The higher education industry is one of the highly volatile industries due to the fact that the systems and the models are ever changing due to changes in environment, technologies, perception of stakeholders and hence with time. These changes made higher education system from teacher driven to student driven, from student driven to industry driven, and from industry driven to technology driven. To fuel these changes, many countries have experimented different models of higher education in which the successful model found till now is a mixed model where both public universities and private universities are allowed to compete to enhance quality through innovations. Lifecycle model of a university based on its essential strategies is shown in figure 1, which postulates that essential strategic stages in a university lifecycle are survival stage, sustainability stage, differentiation stage, monopoly stage, and developed stage in their industry [1]. Initially, in the survival stage, universities have to survive from many challenges and using black ocean strategy including influence, lobbying, bribing, and corruption and identifying & encashing opportunities universities struggle for survival. In the second stage called the sustainability stage, universities establish themselves in terms of offering a variety of courses, making innovations in physical infrastructure facilities. In the third stage of their growth, universities follow differentiation strategy from their competitors by giving importance to both expansion and quality of services through innovations in teaching-learning methods. The fourth stage is establishing a monopoly by giving

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importance to digital infrastructure, Intellectual property infrastructure, Emotional infrastructure. Finally, universities may reach their matured stage called developed stage in which apart from other five infrastructure, universities establish an effective cordial relationship with industries and offer industry oriented programmes, industry integrated programmes in order to the benefits of growth & prosperity. Figure 2 depicts that the core Innovations of universities should be focussed in five areas to develop core resources (Core resource model for a University) which include physical infrastructure, digital infrastructure, innovative teaching-learning infrastructure, intellectual property infrastructure, emotional infrastructure, and network infrastructure [2].
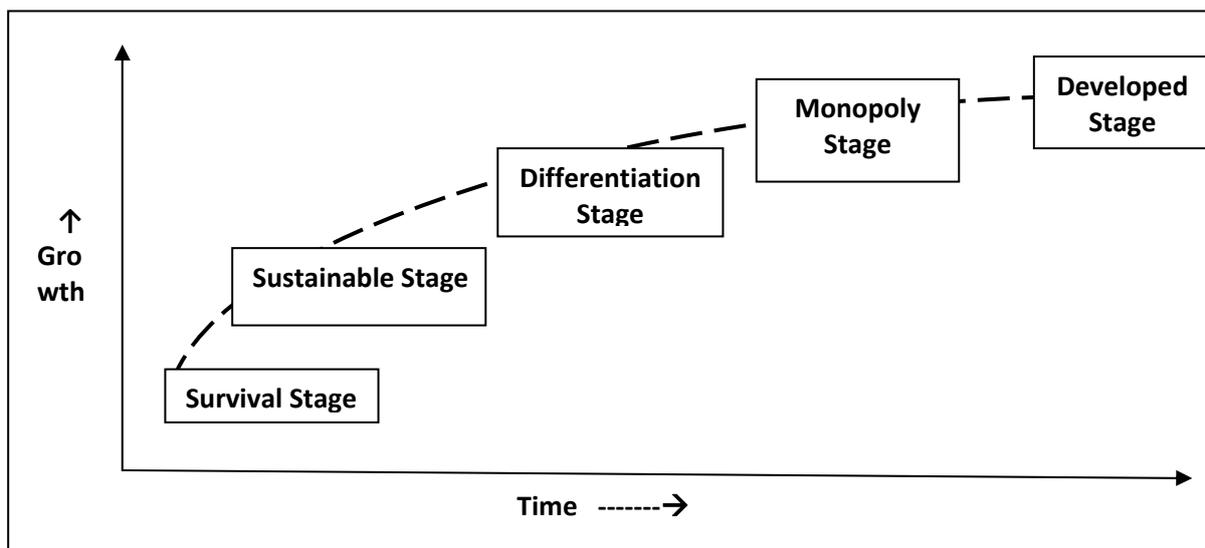
Fig. 1 : Growth stages of the Lifecycle model of a university [1]
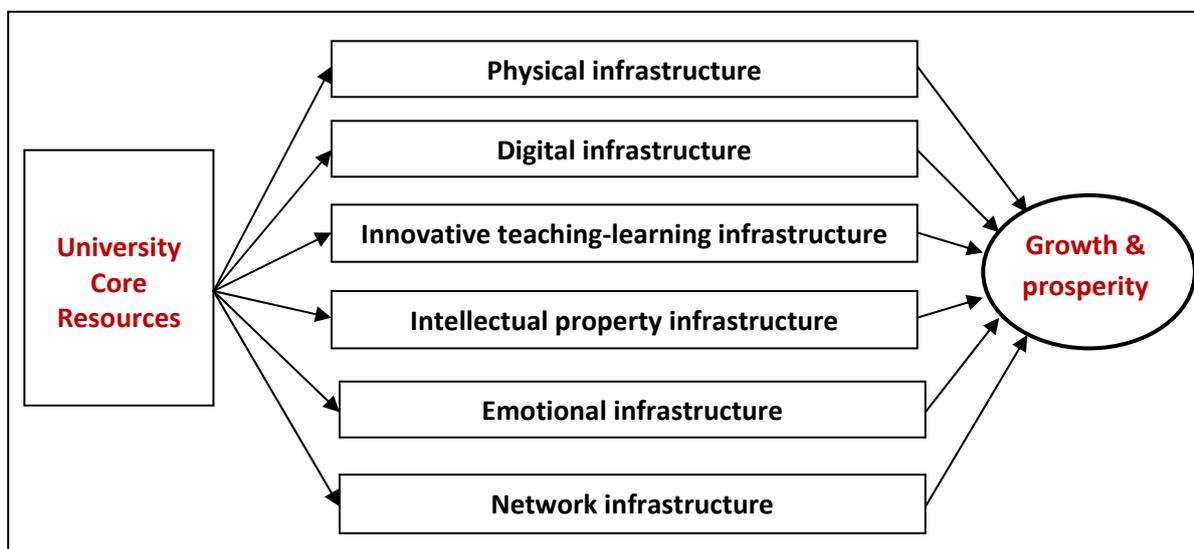
Fig. 2 : University Core Resources model for growth & prosperity [2]

2. PRIVATE UNIVERSITY MODEL IN THE WORLD :

Private universities are finding importance in all over the world due to many reasons including providing opportunities as well as quality education to needy people irrespective of their high score performance in qualifying examinations for admissions so that students get an opportunity based on their re-defined education goal. Due to the shortage of higher education institutions in a given country

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especially in developing countries compared to the country population, private universities are thriving in their number, this is also due to the reason that the Country governments are failed to promote the new universities as well as to subsidise the existing universities to cater to the ever increasing the demand for higher education. Many countries promoted private universities by attracting private investors to share the responsibilities of providing private universities [3].

Private universities are typically operated by non-governmental non-profit organizations like Trust, or Societies, and many receive tax breaks from the government for that purpose, receives student loans and scholarship offers, and sometimes developmental and research grants. Depending on the country, private universities may be subject to government rules, regulations and policies. Still, in many countries, most of the private universities are non-profit organizations contributing heavily to research and innovations. Table 2 lists a rough idea on the number of Private Universities in the major countries/continents of the world. From the table, it is noticed that Japan, being the smallest country has 597 private universities which are the highest number and hence ranked first. Another small country Poland located in European continent has 321 private universities and hence ranked second. India is ranked third in terms of the number of private universities has currently 334 private universities as per University Grant Commission (UGC) a quality controlling and regulatory body of Government of India.

Table 1 : Private Universities in worldwide

z	Country	Continent	Number of Private Universities
1	Nigeria	Africa	60
2	Bangladesh	Asia	91
3	India	Asia	334 (460)
4	Japan	Asia	597
5	Malaysia	Asia	66
6	Pakistan	Asia	83
7	Thailand	Asia	37
8	Germany	Europe	83
9	Poland	Europe	326
10	Turkey	Europe	66
11	Chile	America	31
12	United States	America	More than 100

3. PRIVATE UNIVERSITIES – A SUCCESSFUL EXPERIMENT IN USA :

The experiment of privatising higher education is a successful decision in many developed countries like USA, Japan, and Germany. With more than a hundred years history of private universities in

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USA and given autonomy for growth and excel, US private universities have maintained top ranking for several years. Table 2 depicts the current (2019) Times Higher Education (THE) ranking and shows that 9 universities out of the first 10 universities and 15 universities out of top 20 universities are private universities. Based on such magnificent success, other countries including India have now opened up the higher education system to private investors by giving suitable autonomy.

Table 2 : Top 20 Universities in USA 2019 by Times Higher Education Survey (15/20)

S. N.	University	USA Rank	Private/Public	World Rank
1	Stanford University, Stanford California	01	Private	03
2	Massachusetts Institute of Technology, Massachusetts,	02	Private	04
3	California Institute of Technology, California	03	Private	05
4	Harvard University, Massachusetts	04	Private	06
5	Princeton University, New Jersey	05	Private	07
6	Yale University, Connecticut	06	Private	08
7	University of Chicago Illinois	07	Private	10
8	Johns Hopkins University Maryland	08	Private	12
9	University of Pennsylvania Pennsylvania	08	Private	12
10	University of California, Berkeley, California	10	Public	15
11	Columbia University New York	11	Private	16
12	University of California, Los Angeles, California	12	Public	17
13	Duke University	13	Private	18

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	North Carolina			
14	Cornell University New York	14	Private	19
15	University of Michigan Michigan	15	Public	20
16	Carnegie Mellon University Pennsylvania	16	Private	24
17	Northwestern University Illinois	17	Private	25
18	New York University New York	18	Private	27
19	University of Washington Washington	19	Public	28
20	University of California, San Diego California	20	Public	30

4. PRIVATE UNIVERSITIES IN INDIA – OPPORTUNITIES :

India has opened up its doors to private universities in a big way since the year 2000. Presently India is second in the world (after Japan which has total of 597 private Universities) with 334 Private Universities and 126 Private Deemed Universities leading to total number to 460. Private universities have advantages like investment autonomy, financial autonomy, autonomy in the course & curriculum design, autonomy in manpower management, autonomy in operations and networking, and autonomy in research & innovations. This autonomy of private universities if utilized effectively with responsibility and accountability makes a big difference in terms of quality in higher education and contributions to higher education reforms of the country in the 21st century [4-13].

Table 3 : Types of Universities in India and their percentage

S. No.	Type of the Universities as on 31/03/2019	Number	Percentage
1	Central Universities (Public)	48	5
2	State Universities (Public)	399	44
3	Deemed to be Universities (Private)	126	14
4	State Private Universities (Private)	334	37
Total		**907**	**100**

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These 334 State private Universities are competent to award degrees in 24 states as specified by UGC under Section 22 of the UGC Act with the approval of the statutory councils, wherever required through their main campus. Presently, in India, there is a balance between Public and Private universities with a ratio of 447:460.

Table 4 : Private Universities in Karnataka State : 17 Universities

S. No.	University	Address	Date of Establishment
1	Adichunchanagiri University	NH-75, Tq.- Nagamangala, Dist.- Mandya, B.G.Nagara- 571448, Karnataka	22.01.2018.
2	Alliance University	Bangalore (Karnataka)	16.09.2010
3	Azim Premji University	134, Doddakanneli, Next to Wipro Corporate Office, Sarjapur Road, Bangalore, Karnataka.	13.10.2010
4	CMR University	2,3rd, 'C', 6th Main Road, 2nd Block, BRBR Layout, Kalyan Nagar, Bangalore – 560 043, Karnataka.	16.05.2013
5	Dayanand Sagar University	Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore-560078, Karnataka	16.05.2014
6	Garden City University	GCC House, 340, 5th Main, Indira nagar Double Road, 1st Stage, Indiranagar, Bangalore – 560038, Karnataka	24.06.2013
7	Institute of Trans-Disciplinary Health Sciences and Technology	74/2, Jarakabande Kaval, Yelahanka, Via Attur Post, Bangalore560064, Karnataka.	26.06.2013
8	JSS Science & Technology University	JSS Technical Institutions Campus, Mysuru – 570006. Karnataka.	16.01.2016
9	Khaja Bandanawaz University	Administrative Building, Khaja Bandanawaz University Campus, Rauza-i Buzurg, Kalaburagi 585104, Karnataka	21.04.2018
10	KLE Technological University	B.V. Bhoomaraddi College Campus, Vidyanagar, Hubballi – 580031, Karnataka.	04.04.2015
11	M.S. Ramaiah University of Applied Sciences	Administrative Block, New BEL Road, MSRIT Post, Bangalore – 560 054, Karnataka	09.07.2013
12	PES University	100 Feet Ring Road, BSK III Stage, Bangalore –	16.05.2013

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		560 085 (Karnataka)	
13	Presidency University	Dibbur & Igalpur Village, Hesaraghatta Hobli, Bangalore (Karnataka)	16.05.2013
14	Reva University	Kattigenhalli, Yelhanka, Bangalore – 560 064	16.05.2013
15	Rai Technology University	Doddaballapur Nelmangala Road, SH-74, Off Highway 207, Doddaballapur Taluk, Bangalore561204 (Karnataka)	17.09.2014
16	Sharnbasva University	Kalaburgi (Gulbarga) – 585103, Karnataka	29.07.2017
17	Srinivas University	Srinivas Group of Colleges Campus, Srinivas Nagar, Mukka, Surathkal, Mangalore-574146	20.02.2015

5. SRINIVAS UNIVERSITY – WHY & HOW :

Srinivas University, Mangalore, is a Private Research & Skill focussed University in Mangalore, Karnataka, India established in 2013 by Karnataka State Act. Srinivas University is the flagship of 18 Srinivas Group of Institutions started by A. Shama Rao Foundation, Mangalore, India, a private Charitable Trust founded in 1988 by an Eminent Chartered Accountant A. Raghavendra Rao. A. Shama Rao Foundation has started many professional colleges in Mangalore which include Srinivas Institute of Medical Sciences and Research Center, Srinivas Institute of Dental Sciences, Srinivas Institute of Technology, Srinivas College of Pharmacy, Srinivas Institute of Nursing Sciences, A Shama Rao Nursing School, Srinivas Integrated Campus, Srinivas College of Hotel Management, Vijayalakshmi Institute of Hospitality Sciences, Srinivas First Grade College, Srinivas School of Engineering, Srinivas Institute of Management Studies, Srinivas College of Physiotherapy, Srinivas School of Business, Srinivas School of Management, Srinivas College of Education, Srinivas Institute of Social Work. Srinivas University started functioning from May 2015 with MCA course.

Presently, Srinivas University offers undergraduate, postgraduate, and research courses under 9 Faculties/Colleges with about 75 courses. The University made innovations in designing and starting new super speciality programmes both in UG, and PG level as per present and future industry relevance, innovations in examination system through focus on continuous evaluation and to make it foolproof. The University has established networking with many industries, universities, and Education service providers to substantially improve the quality and weightage of the courses and degrees respectively. Presently Srinivas University has Eight Colleges offering innovative industry oriented specialized courses of UG, PG, and Research levels. The nine Colleges functioning under Srinivas university are :
(1) College of Business Management & Commerce
(2) College of Computer & Information Sciences
(3) College of Social Sciences & Humanities
(4) College of Engineering & Technology
(5) College of Hotel Management & Tourism
(6) College of Physiotherapy
(7) College of Allied Health Sciences
(8) College of Education
(9) College of Design

5.1 Objectives of the University :
With an aim to be among one of the top Universities in the world, SRINIVAS UNIVERSITY has set

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itself the following objectives:
- To promote high levels of intellectual abilities.
- To establish state-of-the-art facilities for education and training.
- To create centres of excellence for research and development.
- To provide consultancy to the industries & public organizations.
- To impart value and ethics based education through national and international collaboration.
- To focus on new models of education like virtual classroom along with traditional education system.
- To emphasize the importance of multi-disciplinary and trans-disciplinary education and research in various areas of science, engineering, technology, philosophy, and culture.
- To develop scientific, technological, cultural and traditional heritage of the people in the society through continuous education.
- To create effective leaders to manage human resources of the world.

"Education is our Passion, Not Profession" and based on this our guiding principle is that "Continuous improvement is only the way to Success". Srinivas University believes that students are the cream of the society and as its valuable customers they deserve the best. The curricular, co-curricular, and infrastructural support it provides to the students is a just expression of this belief.

5.2 Institutional Core Values :

Core Values to be embedded in all stakeholders of the university are :
- **Team Work :** Integrate all stakeholders into a team and foster a culture of unity for common good.
- **Respect :** Uphold dignity of human beings as means and end of change and create harmony with growth.
- **Responsibility :** Increased understanding of ones own place and contributing to enhance performance.
- **Ethics :** Tacit concerned for rights vis-à-vis obligations in discharging duties diligently.
- **Etiquette :** Adopt acceptable ways of putting oneself before others in actions and ideas irrespective of differences.
- **Social Service :** Concern for fellowmen in need and distress, conveyed through spirit of selfless sacrifice.
- **Character, Competency & Confidence :** Demonstrating integrity, while at the same time maintaining utmost capability and strength.
- **Techno-savvy & Scientific Thinking :** Exploring new, developing curiosity to know and logical reasoning that fits in with the spirit of questioning.
- **Quest for Excellence :** Excellence is nothing less than state of perfection and deserves unrelenting pursuit.
- **Continuous Improvement :** The assumption that change can be brought about through improvement and improvement is a continuous process of modifying ones own performance.

5.3 Facts & Figures [14] :

(1) Srinivas University consists of 9 Colleges in Engineering & technology, Social Sciences, Business Management, Commerce, Hotel Management & tourism, Education, Physiotherapy, Design, and Allied health sciences.
(2) About 75 Courses offered with UG, PG, and Research Degrees.
(3) Ranked #1 in Research Publications (Business Management & Information Technology)
(4) 12,000 Students studying in Srinivas Group.
(5) 20 to 1 Student to Faculty Ratio.
(6) About 55% Freshmen who are First Generation College students.
(7) 12 Faculty members have within 100 Rank in Elsevier's SSRN Top 12,000 Researchers during 2017-2018.
(8) About 58% of Students are working/earning during evening/weekend.
(9) About 10,000 Alumni base.
(10) About 62% Students belong to Minority Communities.

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(11) About 52% students are Females.

(12) About 70% students from the Other States.

(13) 100 Acres of Land with 3 Campuses in Mangalore.

(14) 15 Super specialty programmes at UG level.

(15) 900+ Publications during last 3 years.

(16) 1600+ Highly qualified & Accomplished Full-Time Faculty & Staff Members with Srinivas Group.

(17) 200+ Student Research papers during last One Year.

(18) 300+ Recruiting Partners for Placement/Internship.

(19) 60 Research Scholars pursuing research leading to Ph.D. & 10 Post doctoral Scholars pursuing D.Sc./D.Litt.

(20) Top University in India in terms of Research & Innovation in Higher Education.

(21) High Academic Results in All Programs.

(22) National Conferences Held frequently & Proceedings Published with ISBN.

(23) Publishing Four Indexed International Journals online with ISSN and high Impact factors.

(24) Institute of Management Studies has NAAC A-Grade Accreditation.

(25) More than 300 Study Books Prepared for UG & PG Courses by University Faculty Mambers.

(26) 73 Innovations & 28 Best Practices implemented in the constituent Colleges.

(27) 50% of Students receive Institutional Scholarship and 30 % students receive Govt. Scholarship.

5.4 Srinivas University Why ?

(1) Autonomy in Course Design :

• Srinivas Group of Institutions is invested with the autonomy to do Innovations in Higher Education, considering 30 years of experience & legacy in Higher Education, Professional training & research.

• Autonomy to offer industry & research oriented curriculum to younger generation to create next generation leaders & workforce.

• To fulfil the foreseeable demand of higher education in India through predicted requirement of 5,000 universities (existing is only 792 in which about 264 Private Universities).

• The university is founded on the basic premise that all programmes should be catering to needs and responding to demands.

(2) Flexible Curriculum :

Autonomy is exercised in deciding curriculum. Skill based and knowledge based courses are adequately addressed through flexibility in curriculum. Electives and optional are offered to suit student interest and growth.

(3) Innovative Pedagogy :

• A variety of teaching methods are employed which effectively transfer knowledge, impart skills and facilitate learning.

• The curriculum is customized to suit the emerging challenges and opportunities.

• Learning experiences are provided through Lab-based learning, Field-based learning, Project based learning, Class room-based learning, Experiential learning, Case study analysis etc.

(4) Leadership Development :

• A variety of annual programmes are organized through students which build their confidence and leadership.

• Co-curricular and extra-curricular activities foster leadership development.

• Students are trained to be leaders through events, and tasks to enable them to be innovators.

(5) Knowledge for Action :

Application of learning is given emphasis and confidence to perform is chief priority. Field activities, mini projects and industry internship help to put knowledge into action.

(6) Individual Support & Career Advice :

Students receive individual attention, support and care of their mentors. Placement and Career Service Cell is totally devoted to enhance student job opportunities and upgrade their employability.

(7) Continuous Evaluation System :

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Fag end evaluation is replaced by concurrent evaluation which reduces the load and help students to maintain high grades. Equal importance is given to internal versus examination based evaluation. Assessments are based on objective criteria which makes evaluation predictable.

(8) Hassle Free Examination System :
Examination is transparent so as to eliminate students fear. Make-up examinations are conducted for losers so that precious year is not lost. Teaching Plan, Question banks, and Syllabus based study material are part of equipping the students to fare well in the examinations.

(9) Earn While Learn Opportunities :
Timings are suited to take up part time jobs to earn while learn and become self-dependent.
Employment opportunities are disseminated to fulfil needs and offer choices.

(10) Young & Experienced Faculty Members :
A dynamic team of faculty are in combat fitness to help the students to overcome their difficulties. Faculty are tech-savvy to enable use of Automated administration and Teaching software and intranet services. Through participation in conferences and symposium, and taking up consultancies and projects, faculty continuously upgrade themselves to the ever increasing demands of time.

(11) Focus on Independent Thinking & Student Research :
Scientific temper and curiosity to learn are encouraged. Students pursue research as part and parcel of their academic pursuit. New Solutions to new problems is the motto of promoting independent thinking.

(12) More Opportunities for More People :
Driven by the desire to excel, the university makes an honest effort in reaching out to all who wish to be beneficiaries of its mission. The university believes in providing more opportunities to more people, which keeps it inclusive and growing.

5.5 STAR Focused Research & Innovation Model :
Srinivas University has developed an innovative service model in higher education called STAR model with four ingredients : (1) **Students** : Focus on Values, Knowledge, Skills, Experience, & Innovations, (2) **Teachers :** Focus on updating the knowledge, (3) **Academics and Governance :** Focus on Excellence in Education Service, and (4) **Research and Extension:** New Knowledge creation through Research Focus.

Being a research-focused, Srinivas University distinguishes itself from other universities by offering **Research Focused Model** both in UG and PG programmes. This include : (1) Research oriented curriculum to UG & PG courses, (2) Research Projects for the P. G. students in each semester, (3) University Peer Reviewed Research Journals, (4) Encouragement & compulsion for UG & PG Students for Research Papers/Case studies publication along with faculty members, (5) Research Centres under each College with planned target for research & Publications, (6) Minimum four conferences in every College of University annually, and (7) Faculty Incentives based on academic result, attracting project funding, journal Paper Publications, and patents.

Being a skill-focused, Srinivas University distinguishes itself from other universities by offering 21st century skills to identify & encash new opportunities and to offer readymade skilled professionals to the industries through collaborative course design and delivery using professional experts like i-Nurture, ISDC, ICT Academy, Xlenz, ImagineXP, Kakunje Software Pvt. Ltd., Airvantix etc.

5.6 Poised to Take-off by Re-defining HE through Out-of the Box Thinking :
(1) Tradition of Excellence : 30 years of excellence in Teaching is a fine reason to call it a Tradition where quality always takes preponderance to service delivery.

(2) Commitment from Top Management : The vision and Mission of the institution demonstrate the commitment of the Top Management in providing quality education at affordable cost attracting students from far and wide.

(3) Optimum Academic Support : Teachers are keen on Development of Students through designing need based curriculum, student centric pedagogy and progression.

(4) Contemporary Industry Oriented Curriculum : All courses are geared to enable employment and build employability among learners through feedback from industry, employers, and alumni.

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(5) Access to Research : Teachers are involved in research and publications and promote students in their pursuit for new learning.

(6) Affordable Fee Structure & Living Cost : Fee for all courses are realistically set with limits that are economically viable at the same time affordable to an average student and the region offers low living cost.

(7) Developing Leadership through Teamwork. : Opportunity to work in teams turns the student into leaders of their own.

(8) Strong Placement Support : Career service cell builds capability among students to be potential job aspirants and offer opportunity to grab employment.

(9) Higher Growth & Education Opportunity until D.Sc./D.Litt. : Students who cherish enough determination can make their dreams true by joining for an undergraduate course and coming out with a Post Doctoral.

(10) Global Alumni Network : Alumni are spread over the world and they feel like members of a family wherever they are.

6. AUTONOMY WITH RESPONSIBILITY & ACCOUNTABILITY :

The higher education institutions which have autonomy in their operations have opportunities to substantially improve the overall quality of education and hence show their existence globally. Such global brand building exercise is crucial for development and growth. Due to enhanced challenges through online courses and online universities, many existing campus based universities are redefine their quality and teaching-learning model for either survival, or sustainability, or differentiation, or monopoly, or growth & prosper (developed stage) depending on their present status and future plan. Srinivas University, being infant in universities system, encashed its autonomy completely within its constraints, and innovated both in identifying futuristic courses, industry oriented curriculum, enhancing skills of students by collaborating with companies of different industries, integrating research in curriculum and taken steps to implement new innovative pedagogy for independent thinking to create new knowledge. Hence Srinivas university has taken bold steps in identifying and implementing fearless innovations in its higher education service with responsibility and accountability [15-16].

7. INDUSTRY INTEGRATED & RESEARCH ORIENTED CURRICULUM :

Srinivas university is established academic & research collaborations with Academic Partners like INurture, Bangalore, ICT Academy, VentureSoft Global, California USA, IMT Lille Douai, France, Imagine-XP of Pune, Airvantix Education Pvt. Limited, Bangalore, Dell-EMC, Nano Technology and Catalysis Research Center, University of Malaya, Malaysia, DynaMed Clinical Research Tomball, Texas, United States of America, CannyIdeas, Brand Marketing, Iselin, New Jersey, USA, WSB Universities, Poland, City of Glasgow College, Scotland, Raigunj University, West Bengal, Kakunje Software Private Ltd, Mangalore, ACE Manufacturing System Bangalore etc. The university also identified and established relationships with 100 Industries, Professional Bodies, Companies, Networking Platforms and Organizations in and around Mangalore for Student Internships, Consultancy Projects, Industrial Visits and Project Placements (table 5).

Table 5 : Industry Integrated Courses

S. No.	Industry Integrated Course	No. of Years	Collaborator/Training Agency	Head Quarters
1	BCA – Cloud & Information Security	3 years	I-Nurture	Bangalore
2	BCA – Information Security & Mobile	3 years	I-Nurture	Bangalore

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	Applications			
3	B.Sc. - Animation	3 years	I-Nurture	Bangalore
4	B.Sc. – Digital film making	3 years	I-Nurture	Bangalore
5	B.Tech. – Data Science	3 years	I-Nurture	Bangalore
6	B.Tech. – Information Security	3 years	I-Nurture	Bangalore
7	B.Com. integrated ACCA	3 years	ISDC	India
8	M.Com. integrated ACCA	3 years	ISDC	India
9	B.Des. – User Experience	3 years	ImagineXP	Pune
10	M. Des. User Experience	3 years	ImagineXP	Pune
11	MCA (Lateral Entry)	2 years	Kakunje Software Pvt. Ltd.	Mangalore
12	BBA – Aviation & Airport Management	3 years	Airvantix	Bangalore
13	Employability Enhancement Programmes	6 Months – 3 years	XlanZ India Pvt. Ltd.	Bangalore
14	Industry specific Programmes	2-3 Months	XlanZ India Pvt. Ltd.	Bangalore
15	Industry specific Programmes	2-3 Months	ICT Academy	Chennai
16	Academic Value added Courses	2-3 Months	Palo Alto Networks	California, USA
17	PG program Project Training	6 Months	VentureSoft Global	California, USA
18	Data Science & Big Data Analytics Training	2-6 Months	**Dell**EMC	India
19	MBA – International Business	2 years	University of West London, RAK Branch Campus	UAE
20	Masters Certificate in Business	6 Months	WSB University	Poland

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21	Employability Skill Training	6 Months	ABC Consultancy Pvt. Ltd.	Bangalore
22	BBA – Financial Services	3 years	I-Nurture	Bangalore
23	BBA – International Business	3 years	I-Nurture	Bangalore

The university has made further innovations by starting post-graduate research and post-doctoral research courses including M.Phil., M.Tech. (by research), M.S. (by research), and Ph.D. In order to inspire the Ph.D. degree holders in involving further research both independently and in teams, the university has taken an innovative post-doctoral degree programme leading to D.Sc. and D. Litt. with considerably tuff regulations for real achievers for long time research contributions and considerable independent research publications as first author. The university also started a unique research focussed programme to attract researchers and faculty members working in nearby higher education institutions to involve in research activities by registering in the University Post-graduate Research or Post-doctoral certificate programmes to publish their research findings with the help of suitable faculty members of the university. Table 6 depicts such research courses and research certificate courses along with minimum years for completion, conference papers and scholarly research papers to be published along with submission of a project report to the University for Evaluation.

Table 6 : Research oriented Courses offered and publication requirement

S. No.	Research Course/Degree	Minimum Years of completion	Conference Publications Required	Scholarly Publications required in Journals
1	M.Phil.	One	2	1
2	M.Tech. (By research)	Two - Three	4	2
3	M.S. (By research)	Two-Three	4	2
4	Ph.D.	Three-Four	6	4+
5	D.Litt. / D.Sc.	Five years after Ph.D.	6	10+
6	Post-graduate Research Certificate	One-Two	2-4	2-4
7	Post-doctoral Research Certificate	One-Two	2-4	2-4

8. COMPETENCY BUILDING THROUGH DEVELOPING CORE RESOURCES :

It is argued that the competency for a university irrespective of its time of existence and its country location can be built and utilized by developing six core resources. These core resources are considered as essential for the growth and prosper as world class universities are (1) Physical infrastructure, (2) Digital infrastructure, (3) Innovative academic & training infrastructure for confidence building, (4) Intellectual property infrastructure, (5) Emotional infrastructure, and (6)

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Networked infrastructure. Srinivas university is well aware of these infrastructures and focussing its strategies to be poised to become World Class University with super specialty courses and student focussed Research programs.

Physical infrastructure supports comfortability for the stakeholders for effective teaching – learning environment. Digital infrastructure facilitates Openness & Ubiquitous accessibility of information for stakeholders and the public. Innovative academic & training infrastructure for provides effective and efficient transfer of knowledge and skills for confidence building. Intellectual Property Infrastructure contributes to society through new knowledge creation and providing innovative solutions to problems and requirements of the society. Emotional infrastructure keeps the stakeholders connected so that the belongingness of the stakeholders keeps the entire organization united. This will improve the public perception and hence the brand of the organization. Finally, the networked infrastructure connects organization with Industry for providing efficient manpower through interactions for curriculum planning, Training, Placement, & entrepreneurship. Srinivas University through its operational planning, action planning, and strategic planning integrated towards realizing its mission of emerging as research and skill based university to be one among top universities in the international scenario in near future [1].

9. AREA OF FOCUS : COLLEGES & COURSES :

Srinivas university is planning to offer its educational services and research contributions by expanding many possible areas of primary to quaternary industry sectors. In the first phase, it has started with under-graduate, post-graduate, and research courses in Business management & commerce, Hotel management & tourism, Computer science & information science, Engineering & technology, Education & Public administration, Social sciences & Humanities, Physiotherapy, and Allied health sciences. In the second phase, it is poised to start, Medical science, Dental sciences, Pharmacy, Nursing sciences and Architecture & design. In the third phase, the university is planned to offer its services in Agriculture & plantation, Administrative services, Humanities & Indology, and Future technologies. These courses are further divided into regular courses, super-specialty courses, industry integrated courses, and research oriented courses. Some of such variety of courses offered by Srinivas university are listed below :

(1) Regular courses : B.Com. (Honours), BBA (Honours), B.P.T., B.Ed., B.Tech., B.Sc., BA (Journalism), BCA, MSW, M.Sc. etc.

(2) Super-specialty courses : BBA in Aviation Management, BBA in Port Management, BBA in Logistics & Supply Chain management, MBA in Aviation Management, MBA in Port Management, MBA in Logistics & Supply Chain management, MBA in Business analytics, B.Tech. in Nanotechnology, etc.

(3) Industry integrated courses : B.Com. integrated with ACCA, BHMCT, M.Com. integrated with ACCA, B.Des., M.Des., BCA in information security, BCA in Network & server administration, B.Sc. in Animation & VFX, B.Sc. in digital film making & VFX, etc.

(4) Research Focussed Courses : M.Phil., M.Tech. (By research), M.S. (By research), Ph.D., D.Litt., D.Sc., Post-graduate Research Certificate, and Post-Doctoral Research Certificate programmes are initiatives of the University to encourage and attract committed researchers to re-define their career objectives and contribution to Intellectual Property of the country.

10. RESEARCH BASED CONTINUOUS CONTRIBUTION :

Research and publication is an integral part of higher education institutions including universities. In fact, one of the objectives of higher education is creating new knowledge through innovative research. Further, this new knowledge has to transfer to the industry and society in order to improve the performance and quality of various products and services or to solve the problems in society. Many of universities all over the world promoted themselves as research universities as their objectives lead to focus on research along with providing higher education to the students [1-10]. The challenge for the universities world over is how to formulate a strategy to motivate and engage their faculty members and students in research and publications. Srinivas university is forefront in contributing to research through its innovative and unique model of motivating faculty members and inspiring its research

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scholars and PG students in many areas. Some of the favourable steps taken by Srinivas university to promote research and publications by its faculty members and students are :

(1) Research oriented curriculum in UG & PG courses.

(2) Students involvement in research publications

(3) Compulsory publications for PG projects & internship

(4) Publication based coursework for Research courses.

(5) Training on Case studies and Patent analysis for research scholars & PG students for customized education.

(6) University support for organizing at least two conferences annually for each college and departments.

(7) Publication of conference proceedings with ISBN by Srinivas Publication, the publication bureau of Srinivas university.

(8) Support for faculty members and research scholars for free publication through online open access journals.

(9) Establishment of University publications in the form of 4 international indexed journals in different fields of science & technology for peer reviewed scholarly publications.

(10) Free publication of Textbooks and Edited volumes of faculty members through Srinivas Publications.

(11) Fifty percent fees subsidy in annual course fee for University faculty members for doing Ph.D.

(12) Faculty incentives for research publication and Research projects based on Annual Performance Indicator (API) score.

(13) Faculty ranking based on their API scores.

(14) Promoting faculty teams to start and work under Atomic research centres. Presently there are 225 Atomic research centres are functioning in the university which is considered as a unique innovation in promoting research from the university.

Based on above efforts, Srinivas university has published about 1,030 research papers on Conferences, 560 research papers in Conference proceedings, and 452 peer reviewed papers in international journals during last three years as depicted in table 7.

Table 7 : Conferences & Research Papers Published during last 3 years

S.No.	Research Based Activities during last 3 years	Quantity
1	National Conferences organized	18
2	Papers presented by Faculty members/ Students	1030
3	Papers published in conference Proceedings	560
4	Papers Published in Peer Reviewed Scholarly Journals	452
5	Books & Edited Books Published	52
6	Study Books prepared as per Curriculum	300+
7	Atomic Research Centres	225
8	Research Project Grants Received	2.5 Crores
9	Projects Applied	10 Crores

11. INDUSTRY- INSTITUTION COLLABORATION :

The placement and training division of Srinivas university has identified more than 100 local

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companies in and around Mangalore for students fieldwork and internship. The compulsory industry visits, regular fieldwork in these industries, curriculum based experimental learning, and six months internship for some industry integrated and super-specialty programmes.

12. SOCIAL INTEGRATION :

Social Contribution through five neighbour villages adoption, Social training through school adoption for Computer literacy, Connecting Government facilities to the society through awareness creation, Evening & Weekend Courses to working people in the vicinity, Organizing Swachh Bharath programmes under NSS and holidays, Digital Campus Programmes to the stakeholders, Green Campus & Smart Campus using faculty and students, the university is striving to achieve Excellency in its domain to serve the public in the society.

13. INNOVATIONS & BEST PRACTICES :

(a) Teaching-Learning Innovations & Best practices :
- Srinivas university offers only industrial demand based UG, PG, and research courses. These courses are divided into general courses, super-specialty courses, industry-integrated courses and research oriented courses.
- The curriculum of the courses is designed by a team of experts belonging to both industries and academics.
- The curriculum of each subject of every course contains the objectives of the course, pedagogy to be followed, expected outcomes, and the books and articles to be referred.
- Apart from a systematically approved syllabus, each subject faculty of every course develops a systematic session-wise teaching plan, a study book prepared by the faculty as per the syllabus, and a comprehensive question bank. Students have to compulsorily answer these questions of question bank by refereeing Study book and other online library books.
- Continuous evaluation system is adopted where 50% of the total marks are allotted as internal marks and remaining 50% marks in each subject are allotted based on University semester-end exams.
- The internal marks are offered based on continuous evaluation which includes attendance, assignments, internal exams, student presentations, and subject based viva-voce.
- Each course at UG and PG contains six core papers, two value added papers called Employability Skill Enhancement Program (ESEP) subjects.
- In super-specialty and Industry-integrated courses, six months internship is included in the last semester of the course to provide practical experience of the industry.
- The university examination system is innovated by adding multiple choice questions along with descriptive questions in the question papers to give experience and confidence to face competitive exams for jobs or for higher education admissions.
- In order to give justice to every student in the evaluation of papers, double blind evaluation model is adopted and for 15% difference in these evaluations, the third evaluation system is adopted.
- Students also have the opportunity for personal seeing of evaluated answer papers, re-totalling facility and challenge re-evaluation.
- In order to improve academic excellence, the minimum pass percentage in individual subjects is fixed at 50%.
- To attract intelligent students to various courses, the university started a best practice of offering free seats with zero course fees for maximum of 5 students in each course.
- Through starting super-specialty courses and Industry-integrated courses the university started a best practice of supplying readymade employees to the industries.
- In order to avoid year wastage of failed students in every course, the university has started a best practice of conducting make-up exam within 15 days after announcing the result.
- Srinivas University has started a best practice of announcing university exam results within 10 days after the last exam of the respective course.

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- Other best practices like an opportunity for everybody based on first-come first-served model of admission, daily and monthly attendance report to the parents, WhatsApp group of each class members to provide quick and always connected with faculty members and students through e-communication and transfer of information to both directions, etc.

(b) Research Based Innovations & Best practices :

- The University is encouraging research through both Faculty & Students.
- Seed money is given to Atomic Research Centre.
- Basic facilities like Internet, Data & Information Sources are provided to researchers.
- Periodic Workshops on identifying Research topics, Project funding, Research Conferences, Internal Publishing facility, Training on Patenting, indexing & Monitoring citations.
- Training Students and Researchers for Publication including case studies, company analysis, patent analysis.
- Encouraging faculty members to publish research papers along with students by involving them in active research.
- Project funding by Govt., Public, and Private agencies including University research funding.
- Compulsory Conferences to be organized with two conferences per year from all colleges/ departments.
- Compulsory one international conferences per year/ college.
- Compulsory open access Publication of presented papers in conferences as Edited Proceedings with ISBN.
- University press for Textbooks Publication through the open access model.
- Four International Journals published by Srinivas university which are peer reviewed, indexed, and have high impact factors publishing open access articles free of charge.
- University introduced the concept of Atomic Research Centres with one research centre per faculty.
- Faculty financial incentives and Research ranking based on API scores.
- New model of Post-graduate Research certificate programme, and Post-doctorate certificate programme for part-time researchers working in different industries to carry out research and publish papers in collaboration with university faculties.
- To encourage scholars having Ph.D. to continue independent research, University offers post doctoral degrees like D.Sc./D. Litt. with comparatively tough regulations of a minimum of ten research papers published in journals as the first author.
- Announcement of annual research budget and inviting faculty and students project proposals for seed funding.

14. INNOVATIVE METHODOLOGIES DEPLOYED BY THE UNIVERSITY TO ENHANCE RESEARCH PROGRAMMES :

In order to realize the research objectives of the University by involving all stakeholders, the research and innovation council has developed some innovative methodologies to do research in Management, Social Sciences, Education, Engineering & Technology, and Health Sciences. This include (1) A new research framework called Company & NGO analysis for Business Management, Social sciences, and Education related research [17-18]. (2) A new Research method named Patent Analysis in Engineering, technology, and health sciences [19-20]. (3) A method of system / concept/ idea/ strategy analysis called ABCD analysis [21-24]. (4) An organizational performance improvement model called Theory of Accountability [25-26]. These four methodologies allow researchers to analyze the research problems in new qualitative perspective.

Srinivas university is also starting two future technology based research centres in emerging Universal General Purpose Technologies (UGPT) which include Information Communication and Computation Technology (ICCT) and Nanotechnology (NT) [27-30]. In coming days Srinivas University focus on advanced cutting edge research in ICCT and NT by considering the underlying technologies of ICCT and NT as its flagship research programmes. It is planned to develop Srinivas Nanotechnology Research Centre and Srinivas ICCT Research Centre as International research centres to attract international projects funding and international researchers in near future.

15. LIFE LONG LEARNING & CONTRIBUTION :

The Srinivas University has created separate Centre for Research & Innovation, Technology-Business Incubator, and Entrepreneur Development Cells in its Colleges to enhance independent thinking & employability of its students and to support the start-ups with expected funding from the Union Ministry of Small & Medium Enterprises, and the Department of IT, BT, and ST. Srinivas University encourages its students to take part in International competitions, debates, sports, and other cultural events. With the slogan of "Your Career our Mission" Srinivas University is educating the next generation by investing its efforts to "Create Innovators to Serve the Society". Equipped with state-of-the-art laboratory facilities, libraries, resource centres, and having implemented, proven, global academic educational practices, Srinivas University has set itself out to become a premier, Innovative, top Research University in international stature in the near future.

The Way Ahead

As per the Chancellor Sri CA. A. Raghavendra Rao, Looking ahead, the next three years will be crucial as we will introduce new colleges, departments and launching new programs. As Srinivas University gears towards realizing its goal of a research-led and skill-focussed multi-disciplinary University, the commitment to create and disseminate knowledge is intrinsic of our journey. We have set our aim high and look forward to our journey and setting new milestones on the route which finally transforms society as integrated, harmonious, matured, developed, cultured, enjoyable and accountable for future generations.

16. CONCLUSION :

Though higher education industry is volatile, sensible and susceptible to changes, very few organizations think about and implement innovations at working place. Such innovations focussed on core resource areas of any university shows desired changes in the higher education industry model and contribute to education driven social changes. It is argued that any attempt to enhance skill focused innovations and research focussed innovations through internal and external stakeholders contributions will contribute to the university to grow and prosper in its lifecycle at an accelerated pace. Srinivas university, being at its infant stage, realized this truth and doing many experiments within its constraints to improve and provide unique service quality by adopting skill focussed and research focussed models to enhance knowledge, skill, experience and ethical characters of students to boost their confidence and to stimulate their quest for Excellency.

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