



BVRIT HYDERABAD
College of Engineering for Women
2022-23

Details of Guidance for Competitive Examinations and Career Counseling Activities

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A Report on Women in Software Engineering (WISE)

In collaboration with Talent Sprint Pvt. Ltd., BVRIT HYDERABAD started an exclusive program called ‘**Women in Software Engineering (WISE)**’ which is running alongside with the regular academic program to impart deep technology skills to the students making them industry ready by the end of their academic program. We hold a MoU with Talent Sprint Pvt. Ltd. for the various training programs.

Program Objectives

The **WISE** program will be guided by the following underlying philosophy

1. Enable students to develop mid-size software systems by experiential learning
2. Develop an impressive resume for large multinational Software Organizations by incorporating relevant information
3. Focus on building industry necessary skills to make them confident and competent professionals

Program Modules

WISE will have a set of 4 lecture modules as well as 2 project modules which will be spread across the academic cycle over the three years in order to encourage the students to choose projects to align with the focus of their chosen branch of engineering - Computer Science/IT and Electronics & Communication Engineering/Electrical Engineering.

There will be four lecture modules:

1. **Python 101:** This is a Basic Python module provided for 15 hrs, it is a Precursor to Programming.
2. **Python 102:**
 - **Platform:** Linux, GCC
 - **Objectives:** at the end of the module the participants will be able to
 - write, test and debug the python programs
 - use functions, and represent data using python data structures
 - read and write data from and into files using python
 - understand OOPs concepts
 - **Pedagogy:** Students will solve a series of graduated problems
 - **Assessment:** every session will have CFP (Check for preparation) and CFU (check for understanding)
 - **Resource(s):** TS Problem Bank, Project Euler

3. ML 201

- **Platform:** Python, NumPy, SciPy packages, Anaconda, Google - Colab
- **Objectives:** at the end of the module the participants will be able to
 - see how the different fields of study in math's are interrelated
 - understand the basic concepts in machine learning
 - understand the type of problems that machine learning algorithms can solve
- **Pedagogy:** Students will solve a series of Data Engineering problems
- **Assessment:** weekly assignments along with CFP and CFU.
- **Resource(s):** UCI Machine Learning Repository, Kaggle datasets.

4. ML 202

- **Platform:** Python, Anaconda, Google - Colab
- **Objectives:** At the end of the module the participants will be able to
 - understand machine learning concepts and range of problems that can be handled by machine learning
 - apply ML and AI techniques in applications which involve perception, reasoning and learning
- **Pedagogy:** Students will solve a series of Data Engineering problems
- **Assessment:** weekly assignments along with CFP and CFU.
- **Resource(s):** *UCI Machine Learning Repository, Kaggle datasets.*

5. Python Projects 103

- a. **Platform:** Python, Anaconda, Jupyter Notebooks.
- b. **Objectives:** at the end of the module the participants will be able to develop Python projects spanning various domains and applications.
 - i. Provide participants with practical skills in Python programming through project-based learning.
 - ii. Foster a supportive environment for women in software engineering to explore and excel in Python projects.
- c. **Pedagogy:** Students will create in a series of Python projects, emphasizing hands-on experience and practical skills development.
- d. **Assessment:** weekly assignments along with CFP and CFU.

6. ML Projects 203

- a. **Platform:** Python, Anaconda, Jupyter Notebooks
- b. **Objectives:** At the end of the module the participants will be able to
 - i. Equip participants with practical skills in machine learning through project-based learning.
 - ii. Foster a supportive environment for women in software engineering to explore and excel in machine learning projects.
 - iii. Enable participants to apply machine learning techniques to real-world problems and projects.
- c. **Pedagogy:** Students will work on a series of machine learning projects, emphasizing hands-on experience and practical skills.
- d. **Assessment:** weekly assignments along with CFP and CFU.

In addition to this, bridge course for lateral entry students is held.

The project module will cover:

1. **Python Projects 103:** Modern Programming Practice using Python. (*summer break between 1st and 2nd year*)
2. **ML projects 203:** Machine learning projects are developed by applying suitable algorithms along with flask. (*Summer break between 2nd and 3rd year*)

Academic Year	Name of the Activity	Number of students attended / participated
2022-23	Women in Software Engineering (WISE) - Python 101 by Talent Sprint Pvt. Ltd.	564
	Women in Software Engineering (WISE) –Python 102 by Talent Sprint Pvt. Ltd.	564
	Women in Software Engineering (WISE) - Python Projects by Talent Sprint Pvt. Ltd.	564
	Women in Software Engineering (WISE) -Bridge Course for Lateral Entry Students	72
	Women in Software Engineering (WISE) - Python Projects by Talent Sprint Pvt. Ltd.	633
	Women in Software Engineering (WISE) - ML 201 by Talent Sprint Pvt. Ltd.	633
	Women in Software Engineering (WISE) - ML 202 by Talent Sprint Pvt. Ltd.	605
	Women in Software Engineering (WISE) - ML Projects by Talent Sprint Pvt. Ltd.	504



A Sample copy WISE Graduate Certificate

Each module ends with an evaluation by internal team and expert team from Talent Sprint and Industry. Based on the evaluation results, the promoted students will undergo the next modules.

A Report on Career Counseling Programs

GSAC (Graduate Study Abroad Center) of Sri Vishnu Educational Society (SVES) is established to provide a platform for the students, aspiring career abroad/national level. This platform also helps alumnae to get information for admission into universities abroad/B Schools etc.,

GSAC organizes talks and events by experts from various fields of the industry. Career counselling assumes vital significance in the context of career prospects of the students. It takes all care to make students aware of different career & professional avenues open to them. It also ensures that various external agencies conduct classes on campus to train students on GRE/GMAT, GATE, IELTS/TOEFL examinations etc. Also, experts from foreign universities address the students on nuances of studying abroad from time to time. Esteemed universities like Binghamton University, Louisiana Tech, Manhattan, Indiana University etc., had a sessions very frequently with the students aspiring for higher education.

Industry Eminent professionals as well as academicians in different disciplines will be invited to deliver a talk about the latest technologies, provide guidance about opportunities and bring awareness among the students.

Students to be successful, mock interviews are conducted and also student's capabilities are tested to give inputs. Soft Skill Development Programmes assume paramount importance in the context of student employability, focusing on developing students in the fundamentals of English Grammar, Writing skills, Presentation skills etc. Most importantly, the students are trained to prepare Curriculum Vitae/ Resume required for different types of interviews thus make them ready for placements.



Various programs organized as follows

S.No	Name of the Program organized	No. of Students participated
1	Awareness Session on Higher Studies by Ms. Aparna and Mr. Jayasurya from Dr. Raju's Educational Academy, Kukatpally, Hyderabad.	32
2	Awareness Session on Higher Studies for Binghamton University by Khasawn, GSAC_VEDIC	15
3	Indo-US Higher Education and Careers Summit 2022-2023 by Lakshmi Narayan, GECF Associated with Education Matters	15
4	Binghamton University_ MS programs Admissions by Yoons, GSAC_VEDIC	117
5	GSAC-G Cell Inauguration by Vijay Nair, GECF Associated with Telangana Government	81
6	Awareness Session on Higher Studies by Aparna Dandu, FIFO Edu	50
7	Global Education and Admission Fair by Lakshmi Narayan, GECF Associated with Telangana Government	3
8	Awareness Session on Higher Studies by Dr. Lisa Gallagher, Binghamton University	15
9	Career Opportunities in Higher education by Bharath, ETS India Ltd	106
10	Career Counselling Session by Mr. Ragu Kannan, Strategic Management Consulting, International Tax, ERP, M&A, International Development, Hyderabad.	26
11	One to One Counseling by Lakshmi Narayan, GECF Associated with Telangana Government	44

A Report on VEDIC

Vishnu Educational Development and Innovation Centre (VEDIC) is a unique privately funded residential campus established by Sri Vishnu Educational Society (SVES) to train teachers in teaching pedagogy and teaching learning process. VEDIC facilitates students also with behavioral learning and career aspirations. All the trainers at VEDIC have completed doctoral degree in teaching learning processes and quality improvement programs. At VEDIC, the faculty members, staff and students interact with experts to create rich, engaging, learning and teaching experiences. VEDIC's vision is to nurture and empower the faculty members, staff and students to transform the educational experience to be relevant to the workplace of today and the future.

In the exclusive residential-retreat style campus of VEDIC, faculty, students and staff undergo holistic development programmes that are a blend of current best practices around the world.



VEDIC Campus

Career Aspirations in Science & Technology (CAST)

This one-day workshop is intended for students of the 1st Year, Engineering. It helps students to transform themselves from a mere school student to a responsible and proactive individual who self-directs themselves for a better “Career life” in their higher education space.

Need for the Intervention

Students joining engineering studies need to be nurtured with positive personal traits to accept and adapt to the challenges in their learning in higher education. Being meaningful, purposeful and productive Engineers means a lot, not only to their personal careers, but also to the society at large. This workshop is to identify, orient and create a constructive perception on their outlook towards their personal lives as well as their study and careers. Hence this workshop helps the students to transit smoothly from school learning to college learning environment. They learn how to self-direct themselves for their learning in higher education.

Objectives:

At the end of this workshop, our students would be able to:

- Differentiate secondary learning and higher education
- Identify learning techniques for professional learning and retention
- Map career aspirations to learning and development
- Introspect abilities and build remedial plans
- Utilize technology for effective learning

Outcomes

At the end of the workshop, students will be able to:

- Understand “What is the real transition from school life to college life” in the higher education
- Learn to focus and use their strengths to build a strong career life
- Break their stereotype mind-set and understand how to learn in order to develop themselves for their career life
- Understand what exactly is Engineering and learn to plan for their four years of college life
- Learn to prioritize and manage their time effectively to develop themselves for better career opportunities

Intellectual Learning & Engineering Applications Workshop (ILEA)

This workshop is intended for the students of 2nd to 4th Year, Engineering to set a base / foundation for themselves upon building their “individual personality”.

Need for the Intervention

Students mature themselves physically as well as in their mind, during the stage of early and post adolescence. Hence to develop physique, they need to do “physical exercises” and to build their minds they need to do “brain exercises”.

Of course, at this age our students need to actually allocate time for developing their physique (it should be mandated that every student undergoes a structured physical exercise routine of at least 1 hour in the morning and 1 hour in the evening). Similarly, to develop their mind they need to have a structured brain exercises (30 minutes in the morning and 30 minutes in the evening)

(A minimum recommendation would be 1 hour 30 minutes in the morning and 1 hour 30 minutes in the evening of structured physical and brain exercises combined)

Let us not confuse with playing sports as a substitute for physical exercises, or watching a video for a brain exercise.

It is at this age that students start thinking about “themselves”. What they start thinking about “themselves” matter quite a lot, as they become those characters.

Influence of family, friends and society at large have very high impact on students during this age group – where every individual filters and takes inputs into their brain to become what they want to become.

So, this is also the age in which we need to help our students learn about “metacognition” or “thinking about themselves” so that each individual knows what to feed into their brains to become those characters.

This workshop is primarily oriented to “introspect” every individual to look into self and bring in his or her own strengths and needs, so that one would strengthen themselves to become that “character”

Objectives

At the end of this workshop, learners would be able to:

- Identify their thinking style, intelligences, personality & learning style
- Cultivate self-responsibility and self-discipline
- Use behavioral theories for self-identifying & positioning
- Identify learning needs, and practice learning retention exercises
- Practice disciplinary thinking with demonstrations
- Use cognitive theories for learning courses
- Identify strong work interest for better positioning
- Identify purpose of existence and life values
- Interrelate skill, knowledge and competency
- Generate positive outlook and nurture positive mind-set
- Overcome fear and prejudice
- Learn communication skills, body language, negotiating and interpersonal skills, team building, presentation skills, gratitude, problem solving skills, managing stress
- Set goals and have clarity about their career focus areas
- Identify their skills and strengths to develop their personality

Resolution

The Learners from the college will be identified on need basis and will be sent to VEDIC to be trained through the Intellectual Learning workshop. They will be trained and nurtured through active-based experiential learning and SWOT analysis. It helps them to learn from their mistakes, the SWOT analysis helps them to analyze their weaknesses and strengths through thinking style assessment, know their learning style to enhance their learning from the learning style assessment, understand their characters through personality assessment in order to develop right attitude. This gives them a clear picture about themselves. Activities like presentations, role plays and project presentations helps them to use their strengths and improve their confidence, helps build team building communication and interpersonal skills, and learn together along with their friends. They

Experience positive edge reinforcement from their friends as well as through constant monitoring, evaluation and feedback from the trainers in the workshop. They improve in their conversation building skill by understanding and practicing “Six-Hats Thinking” through various activities. They learn how to learn smartly and be a lifelong self-learner from “Think, Read, Write & Discuss” model that is being discussed and practiced in the session. They understand and learn the importance of life values through assessments. Finally, they learn how to position themselves successful for their career; also they set goals for their career life right from the short term to long term goals.



This batch was of 67 students from CSE, IT, ECE, EEE & AI&ML participated. Students were quick to understand and creative. They were open-minded, enthusiastic and receptive as well. They began to interact right from the first activity without any inhibition. They were self-disciplined and participated actively throughout these 3 days in all the activities.