



Since 1962

WOMEN IN ENGINEERING



An IEEE-VESIT Publication

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IEEE Women in Engineering (WIE) happens to be the largest international professional platform, for women across the globe. The organisation is a special dedication to the status and advancement of women in science, technology, engineering and math professions. The main objective of this initiative, IEEE WIE is to facilitate women with equal opportunities in this huge world of technology and make them a part of all technological advancements. We here at VESIT are proud student chapter branch of IEEE known as IEEE-VESIT and are honoured to have WIE as our part. At IEEE-VESIT WIE, our main aim is to provide all women members with equal opportunities compared to their male counterparts. We look forward to present all women members with all the necessary information they need to strive in this male dominated world which will keep them at par with all technological changes happening also give them a self-learning phase where they get to make themselves ready for this competition. We have been conducting various workshops and seminars for our women members to do so. Covering workshops like self-defence and stress management we find any and all avenues to help women in our crusade.

P.V. Sindhu - A Silver Lining in Women badminton

19th Aug 2016, the day etched in the annals of Indian sports history! The cricket-crazy nation of India was glued to television sets to witness history. Only, this time, the sport was different. India's ace shuttler, P.V. Sindhu was playing in 2016 Summer Olympics Women's Singles Badminton Finals at Rio de Janeiro against World No. 1 Carolina Marin. What aggression! What a stunning performance! Though the result went in favor of the opponent in the hard fought game and the score read 21-19, 12-21, and 15-21. It was the 21-year-old Sindhu who won the hearts and of course, the silver medal - A first ever for any Indian woman athlete, in an individual event at Olympics. Talent, power, and grace were abundant, throughout the 83-minute match. It was laced with adrenaline rushes and stunning rallies. In contrast, her magnanimous self could be seen when she crossed over to congratulate the winner. She collected Marin's racket from the Court and handed over to her. P.V. Sindhu was a picture of poise and calm at the podium when our National Song was being played and the Silver was awarded to her.

Sindhu's silver medal took India's Badminton a notch higher and ended the country's long wait for a medal at the event. Hitherto considered as secondary women's singles player behind Saina Nehwal, Sindhu announced her arrival at the top. The coveted medal was a win for her coach, Gopichand too. As her skills were honed by him at his Academy in Hyderabad.

Born in 1995 to professional volleyball player couple of Vijaya and Ramana, Pusarla Venkata Sindhu drew inspiration from Pullela Gopichand who won All England Open Badminton Championship and took to the sport at a tender age of 8. Her grit and determination to excel can be gauged from the fact that she used to report on time to the coaching camp each day, after traveling 56kms from her residence. It is this attitude that earned her the Olympic medal.

Winning tournaments had become the order of the day for Sindhu quite early in her career. Age group national trophies were under her belt when she made an impactful international debut in 2009; claiming bronze at sub-junior Asian Badminton Championships at Colombo. The year 2013 was indeed a special one for her as she went on to become first ever Indian women's singles player to win a medal at the Badminton World Championships. Thereafter, she consistently made her presence felt in the international circuit and remained in top 10 rankings in women's badminton throughout 2014. P.V. Sindhu added a feather to her cap by becoming the youngest recipient of India's fourth highest civilian honor, the Padma Shri.

India takes pride in claiming that the daughter of this country, PV Sindhu has a ranked 10th according to BWF World Rankings (Women's Singles) as of 18 August 2016. Surprisingly, she began her intense preparations one year ago; even as she was recovering from a fractured foot. She has proved the fact that if you have the dedication to achieve something, you can grab it, irrespective of the hurdles coming your way. 7 hours of rigorous training sessions with minuscule sessions of break is not an easy task but P.V. Sindhu managed it in an effortlessly.

She has indeed proved the point that, if better infrastructure and sports equipment are provided, many more budding shuttlers will emerge. She achieved the pinnacle of success, yet has remained down to earth. After having created a history in the Olympics, PV Sindhu is all set to compete for higher world rankings.

Hats off to the sportswoman who now carries the aspirations of a billion Indians!



GENDER PAY GAP

*With a staggering gender pay gap percentage of 27,
The Indian woman is no less than craven;
Family and work dominate her day,
So do the wages of workplace men, needless to say;
A country that boasts of 66 years of being a republic,
Is yet a victim of gender pay gap, isn't it sick?
Reports claim it to be proportional to wages,
Stagnated at 40% for the mediocre strata since ages;
At a modest 38%, the freshers have less to bother,
The 50-60 year olds are the ones who suffer;
Plus 2 and equivalent qualification keep it at ease,
Mere post doctoral kicks it ahead of the crease;
With the same education, same work experience,
Women at senior level nurse the grievance;
Health professionals unfortunately fall prey,
Info-technicians on the lighter spectrum of grey;
And yet another factor being their marital status,
The fate of the divorced and widowed is callous;
Before Bollywood is clichéd with more Priyanka Chopras,
Entertainment needs to see the greener side of the grass;
Rajasthan and Assam awfully bring shame,
New Delhi, however, stands by the aim;
While Articles and Acts decorate the Constitution,
It's the society that needs to establish this institution;
A 12th of April won't eradicate gender pay gap,
Every day, everywhere, everyone ought to unwrap!*

The Struggle for Gender Equality

Manisha A. Hira, Textile Technologist

The human race has been identified as God's most unique creation on the planet. The strange thing, is the drastic difference perceived between the existence of men and women. Women value love, communication, beauty, and relationships. Their sense of self is usually defined through their feelings and the quality of their relationships. In contrast, men generally value power, competency, efficiency, and achievement. Their sense of self is defined through their ability to achieve results. In the process of leading a settled life, the human race identified these stereotypes based on gender. Man was a provider, while the woman was a caretaker, of the family.

The fields of maths and engineering were traditionally male dominated. This stereotype has been held for a long time. However, in every generation females have proved it wrong. Emily Roebling, was the technical leader of the Brooklyn Bridge. Her achievement is a shining example of a woman supporting a family and excelling at engineering. She took up the assignment of Brooklyn Bridge to support her husband, Washington Roebling, who was paralyzed. The Brooklyn Bridge was completed in 1883 and holds a plaque honouring Emily and her husband.

It has always been an ordeal for women in the field of research. There are instances for examples, Dr. Kamala Sohonie, the first Indian woman to get a Ph.D in a scientific discipline. She applied to the IISc for a research fellowship and met with rejection merely because she was a woman! Prof. CV Raman, then IISc Director was dead against having women students. She then became the first of his female students, and performed so well that Prof. Raman changed his stance.

When we talk of higher education, females in both engineering and non-engineering disciplines are consistently reported to be more confident, open to working with males, as compared to male students. This not only shows lack of hostile environment for women in higher education, but also points to a confident new generation of women. When it comes to working in the fields of Science, Engineering and Research, where I have been working, life has never been easy. The stereotype still persists that these are masculine fields. It is worth considering, that encountering obstacles and challenging problems is in the nature of scientific work. Women have shown a great belief in the power of effort, and in the face of difficulty, their confidence actually grows. They keep learning and getting smarter as a result of challenging themselves. These are the qualities that have helped women in Science, Engineering and Research to sail smoothly.

As a researcher, I personally have encountered problems of working in hostile industrial environments and travelling far and wide to promote my work. Long dedicated working hours as well as managing your family; the task is not easy. It is the support of your family and their belief in your potential that supports you. Without this many capable women leave the field halfway. The challenges faced by them are several but most often the "break in career" arises out of motherhood and family responsibilities. The Department of Science & Technology, GOI has realized this, finally. The Department has floated schemes like KIRAN (Knowledge Involvement in Research Advancement through Nurturing). KIRAN is addressing various issues related with women scientists (e.g. unemployment, relocation etc.) and aimed to provide opportunities in research, technology development/demonstration and self-employment, etc It also, under CURIE, (Consolidation of University Research for Innovation and Excellence in Women Universities) develops state-of-the-art infrastructure in women universities in order to attract, train and retain promising girls students in Science and Technology domain. Life is promising, the process of evolving of human race will continue. The difference of gender will narrow down. Someday we will, abolish gender stereotypes. This will be the day we'll finally establish true gender equality.

Manisha A. Hira is a Textile Technologist and a Scientist, with a research career spanning over fifteen years. She has more than 40 publications and a patent to her credit.