

Dr. Nadia Al Hasani: I am honored to train women engineering leaders

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“My vision is to maintain the idea of women engineers as not different as women in the business major or the design major. They are not that different. The medical profession is just as tough as engineering however the society accepts women to enter the medical profession more than they would for engineering. Therefore, one of the things that I am trying to do is basically to make sure that such thinking becomes less of an issue for women.”

These remarks were made by Dr. Nadia Al Hasani, Director, PI Arzanah College, in her first interview with ADNOC News during which she expressed her excitement and pride in shouldering the historic honor and responsibility of training future UAE women engineering leaders in the oil industry.

“It is an honor and it is a responsibility. It's an honor because I am trusted with a pioneer group of students to basically educate them and prepare them as leaders to work in the oil industry. Engineering is not new for women but engineering in the oil industry is actually something different I believe. I do not want to forget those who started before us because we already have many women engineers in the fields. But it is a responsibility which puts a lot of pressure on us. We are under the microscope. There are very high expectations from

ADNOC and our sponsors to basically prepare the best we can and the students I think are up to the challenge which makes my job much easier I think.”

She said that her responsibility was to support these women as much as possible with the aim of creating leaders, noting that her colleagues, the academic directors, had also the responsibility to make sure that the curricula were up to the highest standards of excellence.

Admitting that it was the first time for her to lead an all women college,

Dr. Nadia said that all her career since post high school and even as a student in the college of engineering she had been in coeducation system.

“When I first started I assumed that things would be different and I am happy to say that it is not because it took the pressure off me to



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basically figure out how to prepare a women engineer. But I found no difference between what I would have done if they were in a coeducational environment. So for example when they get into the labs and you have mentioned the overalls they have to basically be equal to their male peers. However, being women we actually find the best way to implement what we need to do without jeopardizing traditional and cultural norms.”

Dr. Nadia said she felt it as a privilege of the students’ prevailing attitude of “nothing will stop us. We are opened and free to do what we

need to do to get these ladies prepared and at the same time we will do what is necessary to work within the norms and the culture of the society.”

Leading the way in women’s engineering

Dr. Nadia said that earlier in November she attended a conference in Washington D.C., in the United States, and it was the women colleges association, noting that there are over 60 women colleges in America tailored to women



was pleasantly surprised to find out that there are more open minded ladies and leaders that I can rely on than I thought there would be. The seeds are already planted and that helps a lot. I am sure their families have a lot to do with it. I think the leaders of the UAE have a lot to do with it.”

education only and that she was privileged to be there and represent one of the only engineering colleges.

“They were really impressed with this. We are the only one in the Middle East, while in the U.S.A there is only one college, Smith College, which started engineering in 2001.”

She said the President of Smith College was surprised that the PI was way ahead of them in this regard as they had just started a small program.

“Yes, we started after them but on another level we are ahead. I think that is important to keep in my mind that my vision is not only for this region but more international because we are able to become leaders not just for here but also through out the world.”

Students excited about their future

On her expectations when coming to the PI Women’s Campus in terms of the society’s attitude to women training in engineering and later could go to the fields, Dr. Nadia said that there were certain misconception in society

that women and men were in different certain characters.

“I have been in academic administration for a number of years and you will find out that in both males and females you have the outgoing personality and then you have the more conservative. But I can say that these young ladies are actually excited about being here. They want to be here. And you can tell that these are the ladies that will be the leaders of tomorrow.

“What makes them special is that they actually believe they can do this. Sheikh Zayed once said that the woman is half of the society and we need to support her to do what she can do best. I think we have these young ladies as a good model to actually follow and whether it is for men or women I believe it is exactly the same.

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PI women students participating in Breast Cancer Awareness Campaign

high school so I will not take credit for the seed I will only take credit for helping the little plant to mature and come to fruition. I think we have to give credit to the society at large."

On the role that women engineering graduates would play in the industry in future, Dr. Nadia said what the Women's Campus has been doing was to basically try to establish contacts with pioneer women in the oil industry.

"There are a number of them in ADNOC and the OPCOs. Those are the genuine pioneers; the ones that went to the field when it was not allowed. Those are the ones who basically I know from the numbers out of 100 or 200 engineers there might be one or two woman. So I am basically relying on their experiences to convey it to our students. Our students will then find out that they are not alone and they will not necessarily carry the burden of becoming role models. The other thing is that they will know that there are women before them whom they can ask for advice. We have a wealth out there in the women engineers throughout the industry

who actually will be helping these women to take their right role."

Women do not build hopes on a second chance

Commenting on the wide spread concept that women do better at school than men, Dr. Nadia said that studies in the United States had shown that in general women tend to do better in school and particularly studies indicated that in the high school level women performed better in the sciences and math when they are actually in single sex as opposed to coeducational environment.

"In our case, however, I truly believe that many of my students actually see that this is an opportunity that has been given to them. This is not something that they are taking for granted, their counterparts (men) on the other hand will take it for granted that they go to college and they get a job with the level of the federal government or at a high level so I think that these young ladies do not take anything for granted.

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"They are smart enough to know that if they do not do well there are consequences and those consequences might not allow them a second chance. I think with the men they might be given another chance less so with the women. I think that is their approach in education in general. Now in PI in particular our students are really dedicated to their education. They tend to have less of an issue in terms of social interaction such as going out or having time to spend with their friends; they are much more dedicated to studying and by nature women are detail-oriented so when you are studying science specially physics or chemistry or you are working in the lab it is just by nature they are much more detail-oriented. They are much more studious and responsible. I am talking about education and not the personal life. So that might explain why they are doing good.

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"We have been very careful. All the exams given are the same to the male and female students. They are also given at the same day and time. So we can judge and see how the performance is across the board with the same faculty, same exams and same time of the exams and when the results are out I just hope my students will do better."

Dr. Nadia highlighted that one of the good things about an all women education is the ability to teach the students how to think freely but of course to think responsibility.

"Freedom comes with responsibility and you saw that so at the end the women students comments for their male peers was that 'we are not going to beat you but we are equal' and they did not request anyone to see them more than what they are. That's very telling. That shows the maturity that you see in the ladies and the young generation.

Laying foundations for research-oriented education

On the difference between university education in the USA and the Middle East, Dr. Nadia expressed her belief that things were



changing for the better and that she was delighted to see such change.

"I do not think I would have stayed this long if I did not feel that I was making a difference. Anybody who feels that they are making a difference then there is hope and you have to believe that there is hope."

On research, Dr. Nadia noted that there was still a way to go and it needed first building up the new generation as one cannot do research without having research assistants.

"I need graduate students so I believe that UAE is on the right track because they are actually giving very close attention to education at the college level and I hope that this will trickle down to the university level as well because we have high admission standards at the PI. At the moment very few students start at the freshman level which is very typical in the US. We are doing this for their own good because when you claim that your basically providing education at the highest level then you can not cheat when it comes to admissions which is why many of the students which you interviewed today are in the foundation program to basically bring up the level of physics, English and math and chemistry to

the level that would make them comfortable starting their freshman year in engineering.

"Hopefully that the next batch when high schools have a much higher standard we can have more students entering the freshman year right away. Things are improving and I am very comfortable and it is actually good to have competition. So I am very comfortable with the fact that there are number of institutions through out the UAE. Choices are always good and when students choose us that means that we are better."

Dr. Nadia said that one of the reasons for establishing of a high school for boys and girls in the PI was to spare the students from spending an extra year with us.

"There will be a separate entity for each but it will have the same curriculum and the same building and the understanding is that the students will then come to us and it will save the student one year of education at the university level."

Field work and interaction with ADNOC women engineers

Dr. Nadia expressed her delight in ADNOC's decision last month to open on shore filed positions to women.

"I think that's a good step towards the right direction. You don't have to force these women. I think when things are made available within certain guidelines and norms and you have it available to both men and women its for the best for everybody and it is at a crucial time where ADNOC needs all the engineers they can get and start to get this next generation up and running to basically take charge on natural resources."

As part of familiarizing the students with the industry's work through the eyes of women already in the field, Dr. Nadia said that the students had already listened to lectures by several women engineers from ADNOC, affirming her intention to continue with this collaboration:

"I would like to extend an appeal to all the women engineers in ADNOC and OPCOs to help us. I know they are all very busy and they have to juggle and balance between their personal life and their professional life but we are at a turning point here and we need all the help and support that we can get from them because I cannot do it alone and it makes great difference when an engineer comes in and says I am an engineer and I went through what you are going through and here is where I am. I think it is much more believable for the students and it gives them hope."

On trips to ADNOC and other places, Dr. Nadia expressed the students' interest in visiting ADNOC, but asserted that as PI was striving to run a world class university, it was very careful not to let students miss any classes.

"We try to do many of our trips during the weekends for field trips or after working hours. We have received few invitations."

Peerless in the region

Dr. Nadia expressed the PI's readiness to receive visitors whether foreign students or any other interested parties to the PI, particularly the Women Campus so they could see what the PI was all about.

"As I mentioned earlier this is a new experiment even for advanced countries in Europe and North America. Hence, we may make mistakes, of course we hope we would not, but we will definitely learn from any mistakes. But it is a new experiment there is no near institutions that we could look at. Yes, there are a number of universities and colleges in the region who are dedicated to women education but they are not dedicated to engineering only. This is to my knowledge the only one."

"It is also important to know that our students are not taking soft courses but they are taking math, chemistry, physics and English over and over again. This puts a lot of pressure on our students and at the same time we have our expectations for them. We want them to do sports and go out and do things with the community like the breast cancer awareness

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campaign which was very important and you saw them wearing the pink ribbon. I think it is important because if they want to be 50% of the society they have to be the responsible 50% of the society so we teach them how to become a complete person not only focusing on studies but also on other things in life.”

CEO visit to Women Campus

Answering on a question whether the CEO visited the Women's Campus, Dr. Nadia said that she had yet to send an invitation, noting that as the CEO visits the PI regularly and that she expected him to visit the Women's Campus during the opening of the second half of the campus building next semester spring 2008.

“Once all the labs are completed, we will

have more than 40 labs for Arzanah. I think that would be an opportunity for us to extend and invitation for His Excellency to see the project complete. The doors are always open for him but I would like for him to come and see us when the project is complete.”

Profile:

Dr. Nadia Al Hasani finished her bachelor degree at the college of Engineering at the University of Baghdad. She finished her masters at MIT then she did another masters and PhD in building technology at the University of Pennsylvania. She taught in a number of institutions in the U.S.A. University of Michigan, Notre Dame, University Miami in Florida and finally she taught at the University of Pennsylvania where she was teaching graduate programs only masters and

PhDs. Dr. Nadia came to UAE eight years ago with the intention of staying one year. She was a professor at American University of Sharjah (AUS) and was there for eight years. She came in 99 to the UAE and her last position there

was the assistant vice chancellor for academic affairs. She then returned last year and spent her sabbatical year doing research at MIT at Harvard where she was recruited by the Petroleum Institute.

Muna Al Alawi lectures at PI Women Campus

The PI Women Students had a glimpse of their future as engineers in ADNOC by listening to Muna Al Alawi, a Production Engineer Specialist in ADNOC.

In a lecture entitled 'The Road Ahead of You', Muna spoke to them about the role of woman engineer, work opportunities in the oil companies, and challenges and difficulties ahead.

Muna, who graduated in chemical engineering from the UAE University and earned her Masters from Heriot Watt University, U.K, in Sustainable Process Engineering, highlighted the concepts and implementation of chemical engineering.

She said the students asked her questions about the number of women engineers in the oil companies, the nature of work in the fields, the specializations in demand and training and career development opportunities.

Talking to ADNOC News on how the society's perspective to women engineers has changed since her student days, Muna said that UAE women participate in the socio-economic development of the country and were a fundamental factor of modernization.

"This reflects the vision of President His Highness Sheikh Khalifa bin Zayed Al Nahyan and his continued support and encouragement for the working woman," she said, noting that during her work in ADNOC she has discovered that the woman has a unique and distinguished position and an equal status as the man.

On the PI Women students, Muna said that the establishment of the PI and the provision

of distinguished faculty from the best universities in the world was a great opportunity to prepare them for leadership positions and easily adapt to the work environment in future.

"I call upon the students to work hard to achieve the fundamental objectives for the creation of Institute and to always keep in mind that serving the country comes first," she said.

Answering a question on whether engineering was a good career for women, Muna pointed out that opportunities, challenges and ambitions in the oil and gas industry in the UAE was considered a motive for all both men and women.

"I have noticed through my experience in ADNOC and its Group of Companies that highly qualified and studious women engineers have a great impact on pushing the wheel of development for the better," she said.

She emphasized that the importance of engineering students to make trips to the oil fields to acquaint themselves with the nature of work and see the practical application of what the theories they had learned.

Muna expressed the readiness of women engineers in ADNOC to pass their experience to the students.

"When I met Dr. Nadia Al Hasani, Director, PI Women's Campus, I felt her keen interest in having close contacts with women engineers in ADNOC and Group of Companies so the students can benefit from their experience. I am sure the PI will make a schedule for students' field visits and we are ready to help them."

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Bashayer Al Matroushi



Sara Nasser

is a great opportunity for me to be in the fields because this fulfills my childhood dream for engineering. I am also looking forward to work in the fields as I do not see any difference between men and women to work in the fields.”

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PI women students: giving new identity to UAE oil engineering

Since the opening of the women's campus of the Petroleum Institute in 2006, the enthusiasm and motivation of female students for learning engineering and working in the male-dominated industry show no abating.

Meeting some of the fresh class students, ADNOC News found the same vein of strong passion running through all the women students in proving their prowess for hard work and arduous education. Despite their science backgrounds and engineering studies, it is quite surprising to see that the majority of them have poetry and writing as their hobbies.

Sara Nasser, a Foundation two student,

expressed her zest for engineering since childhood and her desire to work in the fields: "It is a great opportunity for me to be in the PI because this fulfills a childhood dream for me. I am also looking forward to work in the fields as I do not see any difference between men and women to work in the fields."

The promising engineer who has a knack for poetry as well, said she was lucky to find



Amna Saeed Al Muhairi



Afra Al Buraiki

the PI atmosphere and the environment at home both supportive.

She said that women students had no interaction so far with the men students, expressing her conviction that an all women environment is more relaxing and more appealing to her than a co-educational set up.

Amna Saeed Al Muhairi, Foundation two Geosciences major student, who prefers to work in the field than in an office environment, said her mother was reluctant to agree with her in the beginning about her choice of study.

"At first my mother disagreed with the idea but she changed her mind after I explained to her about the nature of work we are going to do," she said.

As the only member of her family studying engineering, Amna rejected at the idea of engineering being a man's domain: "I think it is fine for both genders and it is the best major for me as I was a science student at high school."

Bashayer Al Matroushi, Chemical Engineering student, said that she had a passion and personal interest for studying chemical engineering.

"First I like the field and secondly I have a

project underway with ADNOC and I decided to study chemical engineering so I can complete my project," she said.

Bashayer said she enjoyed the PI environment and the support that students give to each other: "In the PI we all support each other. We are all one family. We do not interact with the men but personally I do not mind interacting with them because eventually we will be working with each other."

On her feeling about becoming a woman engineer in the oil industry, Bashayer said: "It makes me proud because it is rare to find women in this field and as women we want to show our roles and participate in the country's development. We want to be involved in the expansion projects of ADNOC."

She expressed her disagreement at the perception of women being better in learning than men: "I don't agree with this. We are both capable of everything. Nobody is better than anybody. Each one has his own capability. We complete each other."

On balancing work-family responsibilities, Bashayer said that women could balance their duties between work and work through time management, saying that her father was an engineer and her mother works in the oil

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Khawla Abdulla al Muntheri



Mariam Tareq Khalifa

industry and acts as her role model.

Apart from engineering and learning, Bashayer said her hobbies include volleyball, horse riding and writing poetry in English.

Mariam Tareq Khalifa, A freshman stu-

dent, said she resisted her parents' wish for her to study medicine and opted for her passion in engineering.

"My parents pushed me to study medicine but I refused, I am not into biology. I am good





at mathematics, physics and chemistry. This is why I chose to go to engineering," she said.

Mariam, who likes to work with machines, said that she won her parents support at the end with a small condition that she should not work in the fields.

During her free time, Mariam likes to hone her hobbies which include swimming and writing articles and poetry.

Khawla Abdulla al Muntheri, second year chemical engineering, said that things had become more improved and easier since joined the PI, citing that Dr. Nadia, Al Hasani, Director of Women's Campus, had given them motivation they needed.

Expressing her interest to work both in the fields and offices in order to gain comprehensive experience, Khawla said that she visited Takreer, saw the plant and listened to an explanation on the process of refining oil.

Khawla who moved from the UAE University where she was following the same major, said joined the PI despite her family's objections.

"My family thought the PI was a coeducational institute and they did not want me to

join it. But I insisted to join it because I am interested in the Petroleum field," she said.

On her first experience in the fields, Khawla said that she was a member of a group that went on a trip to Tarif as part of a geosciences course. She described geoscience as, "a bit difficult because it contains everything but I am up for the challenge."

Afra Al Buraiki, Foundation two, expressed her pride to be an engineer, saying, "I am proud to be an engineer. I feel it is a great chance to prove that women in the UAE can really be engineers and it is an opportunity for us to prove ourselves."

She said she chose chemical engineering as her due to her love for chemistry and working in labs and running chemical experiments.

On her family's reaction to her choice of study, Afra said that they her parents were very supportive of her and did not even object even when they had learned that their daughter might be working in the fields with men.

As a lover of drawing, volleyball and video games, Afra said that they were working on forming teams and that they would soon witness the starting of tournaments.

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Al Buraiki**
