SCIENTEC NEWSLETTER

July – August 2015

First and foremost, we wish all our Muslim associates

A Very Happy Eid.

Dear Readers,

This issue is all about feeling great!

Have you ever noticed how doing something for someone else can give you a feel-good buzz that lasts a long time? That's probably something many of you got to experience this **Mandela Day**.

Talking about things that uplift your spirit, we all love to save, don't we? So, you'll be glad to hear that we have revised our **short courses** to suit your training budget.

In this month's newsletter, we've also included news on other things that will up your feel-good factor, including

- **UKZN Unveils Solar Car For Global Race**

I hope you enjoy your read. And please feel free to give us some feedback

Happy reading.
To a month of feeling great,
Sana Hanif

The Choice of Feeling Good

A common myth is that we have no control over our feelings. We get caught up in our feelings of depression, anger, guilt, worry and anxiety and believe that this is the way it must be. What we tell ourselves can affect our feelings. Blaming others for our internal states of negativity is a coping mechanism which we use to protect ourselves from personal responsibility. Blaming others when we feel bad is a habit which can be unlearned.

As Albert Ellis' Rational-Emotive Therapy has pointed out - no one can make you "feel" a certain way. Events happen to you without your being able to control them. What you can control is how you react to the events. As the old saying goes, "You can't keep misery from coming around, but you don't have to give it a chair to sit on."

The first step to unlearning a habit is to bring it to a conscious level where it can be examined. Monitor your thoughts concerning the negative emotions of doubt, worry, anger, depression and guilt.

We can learn to take responsibility for choosing our own way to feel in any given situation. To choose is to realize one's own role in prolonging the negative emotions the mind states. The choice lies with accepting one's own personal responsibility in assigning the state of mind to be negative. Ask yourself "What am I telling myself to make me so upset?" Analyze when the negative thoughts occur. Try to determine when you do not allow the negative thoughts to creep into your mind.

Make the choice of taking responsibility for your own thinking. Instead of saying, "He/she/they make me feel . . . . ." type statements, change the beginning of the sentence to one of personal responsibility. Say "I make myself feel . . . . ."

The next step is to recognize the role of personal choice in the internal statement you are making. Analyze the choices that you are making: "I choose to . . . . ."

The final step is to stress to yourself that you have a choice in the matter - the choice of attitude in any situation, no matter how adverse the circumstances.

Sometimes the decision to feel good must be made again and again. This affirmative decision can be a daily choice or even a moment-to-moment choice. When the negative thoughts occur, they must be released with the statement, "I can feel good about this."

The choice is yours. Why not choose to be at peace with yourself and feel good? Confront what you are doing to yourself. You have only so much time and energy. Choose to use that energy productively. Why choose to spend your life angry, depressed, guilty and anxious? Modify those internal statements that allow grief and misery to occupy your mind. Ask yourself, "Am I doing the best to take care of myself today?"

If a worm is in your apple, it gives you no excuse to eat worms!

UKZN UNVEILS SOLAR CAR FOR GLOBAL RACE

The University of KwaZulu-Natal (UKZN) School of Engineering has unveiled the solar-powered car that will be the first African entrant into the biennial Bridgestone World Solar Challenge to be held from October 18 to 25. This solar car is an undergraduate engineering final year project led by Kirsty Veale and Clinton Bemont.

The UKZN solar car team is one of 47 teams from 25 countries. Many teams have been participating in the race since its inception in 1987. The South African car has been entered into the Challenger class, which is the premier segment of the event and by far the most competitive. Despite the fact that the Hulamin project cost just a tenth of that of many of its competitors, Bemont said the team was confident that it would perform well.

The car will be shipped to Australia on July 31. Once there, a special nonreflective coating that is hypersensitive to touch will be applied just before the race begins. The aerodynamically designed car is 5 m long, weighs around 230 kg and has a very low drag coefficient of just 0.07, which enables it to go both faster and further. It is lightweight, yet rigid and safe.

Work on creating a solar car at UKZN began in 2012. The car that will go to Australia is the second car that has been built from scratch. “We’ve built on and enhanced the 2014 car and kept part of the original team. That places us in a strong position to compete,” said Veale. The initial car, named iKlwa, won the national 2014 Sasol Solar Challenge and set distance records in the Olimpia class.

ENERGY CRISIS FORCES SA INDUSTRY TO INNOVATE

Company Announcement - South Africa's energy supply challenge has created opportunities for companies to innovate in their use of energy, and to become a world leader in industrial energy efficiency, experts said in Durban on Tuesday. SA was already exporting its industrial energy efficiency knowledge and skills to 17 countries, said NdivhuhoRaphulu, director of the National Cleaner Production Centre of SA. "The energy shortage gave us real impetus to build skills and capacity with our Industrial Energy Efficiency Project," Raphulu told the opening day of the IEE Conference and Manufacturing Indaba KZN. "SA has been accelerated by its energy shortages to the forefront of cleaner and more efficient production," Raphulu said.

South Africa was the first to implement the IEE project, which now operates in 17 countries internationally. Hemant Grover, technical manager at NCPC-SA, said the 1340GWh savings enabled by the IEE project exceeds all energy generated at SA hydroelectric power stations by 30%, and equals 10% of the country's nuclear power generation. The IEE savings would power 118,000 SA mid-income homes for a year. "Energy efficiency is energy that does not need to be created," said Grover. "We need to start seeing it as a primary energy source, particularly under SA's challenging conditions." Manufacturing Circle executive director CoenraadBezuidenhout said industry had been forced to become more self-sufficient in its generation and use of electricity, creating opportunities for cost saving and increased competitiveness.

"Going green is now the competitive thing to do," said Reinet van Zyl, sustainability manager at Arcelor Mittal in Saldanha, which joined the IEE programme at a time when rising power costs and global competition had forced it to the brink of closure. "We weren't competitive and didn't know how to change that, but the IEE programme and NCPC experts empowered us to see opportunities and make changes."

Van Zyl said the steelmaker has cut its LPG consumption by 49%, saved 20MW in baseline energy demand and already paid back its R15m investment in energy efficiency. "NCPC made the difference by changing not just the way we operate, but also the way we think."

ImraanBux runs a textile manufacturer in rural KZN, 100km south of Durban, and faces challenges including cable theft and prolonged load shedding. But the advantage of not having industrial infrastructure, he says, provided a blank canvas on which to develop green industry solutions.

The NCPC-SA helped his small company, Imraan Textile Mills, to cut energy use 30% in one of its processes, and to increase productivity. The high cost of electricity is not as damaging as the cost of not having power at all, noted Lisa Reynolds of Saint Gobain, a global firm making building materials in SA. She agrees that the power crisis prompted industry to become more efficient in the use of energy, which means companies are less likely to spend their profits on the cost of wasted power. "Green manufacturing saves energy and generates profits," she told the event.

SHORT COURSE	DURATION	COST
Managing Business Operation	2 DAYS	R 1500
Produce A Business Plan For New Venture	2 DAYS	R 1500
Determine Financial Requirements Of A new Venture	2 DAYS	R 1500
Customer Service	2 DAYS	R 1500
Outline The Legal Environment Of The Legal Industry	1 DAY	R 750
Business Ethics	2 DAYS	R 1500
Behave In A Professional Manner In A Business Environment	2 DAYS	R 1500
HIV And Aids	1 DAY	R 750
Prepare And Process Documents For Financial And Banking Process	2 DAYS	R 1500
HR Principles	2 DAYS	R 1500
Process Technology And Plant Optimization	2 DAYS	R 1500
Effective Shift And Plant Handovers For Operators And Supervisors	1 DAY	R 750
Good Manufacturing Practices	1 DAY	R 750
Quality Principles	1 DAY	R 750
Enhance Team Performance	2 DAYS	R 1500
Lubrication	1 DAY	R 750
Self-Management	1 DAY	R 750
Chemical Handling	2 DAYS	R 1500
Apply Standard Operation Procedures In A Process Environment	2 DAYS	R 1500
Maintain An Existing Information System In A Business Environment	2 DAYS	R 1500
Process Instrumentation	1 DAY	R 750
Work Place Safety	1 DAY	R 750
Basic Computer Skills	2 DAYS	R 1500
Basic Hand Tools	2 DAYS	R 1500
Piping And Instruments	2 DAYS	R 1500
Flanges And Gaskets	1 DAY	R 750
Filters And Strainers	1 DAY	R 750
Valves	1 DAY	R 750
Pumps	2 DAYS	R 1500

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