



**Nelson Mandela  
Metropolitan  
University**

*for tomorrow*

Port Elizabeth & George

**Centre for Academic Engagement and Collaboration**

**Consolidated Executive Report  
2015 Engagement Advancement Fund**

<http://caec.nmmu.ac.za/Engagement-Information-and-Development/Engagement-Advancement-Fund>

## **Project title: Alternatives to Violence (AVP)**

**Project leaders: Prof Lyn Snodgrass and Ms Shena Lamb-Du Plessis  
(Political and Conflict Studies)**

### **Project leader's executive report:**

The Alternatives to Violence Project (AVP) is a multicultural organization offering experiential workshops which empower individuals and communities to liberate themselves from violence. AVP understands that conflict is natural but that it is possible to deal with potentially violent situations in creative and nonviolent ways. Operating in South Africa since 1995, AVP began in a New York prison in 1975 in response to a request for help from the inmates and has since spread to 60 countries as it easily adapts to different cultural situations. At NMMU Prof Lyn Snodgrass of the Political and Conflict Studies Department has supported AVP research projects since 2006 and nonviolent approaches are included in the conflict transformation and management modules. In Port Elizabeth The German Development Bank (GIZ) has collaborated with AVP-SA since 2014 and has funded the training of 40 community leaders in Port Elizabeth and the Southern African Development, Research and Training Institute (SADRI) a non-profit, non-governmental developmental organization has supported AVP networking since 2005.

Funding from CAEC enabled all the AVP facilitators in Southern Africa to meet together for the first time and participate in three days of seminars and talks aimed at consolidating a national AVP structure. Eighteen facilitators attended, including regional coordinators from the Free State, Gauteng, KwaZulu Natal, Lesotho, Namibia, Western Cape and Zimbabwe. A colloquium on Alternatives to Violence was hosted by the Department of Political and Conflict Studies in the North Campus Conference on 21<sup>st</sup> August 2015 which was attended by NMMU staff and students, local community leaders and members of the public. In an all-day Strategic Planning Workshop on Saturday, 22<sup>nd</sup> August 2015, AVP facilitators presented their regional reports, shared outreach strategies and identified common problems. On Sunday, 23<sup>rd</sup> August the attending AVP facilitators also participated in a day's workshop on Trauma Support led by Nigerian facilitator, Maji Peterx who has recently been working with communities affected by Boko Haram in Northern Nigeria. For more information on AVP, see <https://avp.international/> or watch excerpts from an AVP workshop at: <https://vimeo.com/27793169>

We are very grateful to CAEC for enabling this massive boost to AVP's identity in SA and for the opportunity to strengthen AVP links in Africa.



**Left: AVP facilitators at NMMU Colloquium, North Campus Conference Centre, 21<sup>st</sup> August 2015  
Right: AVP workshop for PE local community leaders, South End Museum, November 2014**

**Project title: NMMU Arts & Culture Drama Programme**

**Project leader: Mr Michael Barry (Arts & Culture)**

**Project leader's executive report:**

The Nelson Mandela Metropolitan University has been on the move with bringing the arts to the institution, as well as the broader metro. *Umkonga, Omhels*, a festival organized and presented by the Department of Arts and Culture at NMMU was held at the Goldfields Auditorium, North Campus on the 10<sup>th</sup> and 11<sup>th</sup> September 2015. It included and featured artists in the field from different spheres, from Johannesburg to Port Elizabeth. Smile Music, a production company from Gauteng did university tours nationally, having around 8 partnerships with institutions around the country. Their musical rendition of our land and our people did not disappoint, entitled *Mzansi: Khaya Lami*. This festival came about as a result of previous years' work to build our drama unit to stronger and higher quality, and this platform is another stepping stone to our goal for 2016 of taking a production to the Grahamstown NAF.

In 2015 local Port Elizabeth professionals Nobesuthu Rayi, and Xabiso Zweni graced our stages in the show entitled *Monologues*, accompanied by musicians to tell another South African tale of a mother and son, though not related, having parallel experiences. Then Mr Zweni and Anele Penny staged *The Ghost of Glenmore*. The NMMU Drama Society brought their own show called *Behind Closed Doors*, which told the story of friendship, love, hardship of 3 couples living together, and the secrets that ultimately destroy them. We then had the production by the Faculty of Education, aptly entitled *Teacher Heaven*. It tells the story of two teachers arriving at heaven's gates expecting to be allowed in. However when they get there they discover that they are not allowed in, instead their earthly activities as teachers are reviewed. The university was also visited by guests from the Oldenberg University in Germany, who presented on theatre techniques to all the artists at the festival. All shows were free of charge, and the students and staff of NMMU, NMB learners, and broader community could come along for some artistic enrichment.



**2015 Grahamstown National Arts Festival**

## **Project title: NMMU George Campus Open Day Sport Clinics and Competitions**

**Project leader: Mr Petrus Boukes (Madibaz Sport)**

### **Project leader's executive report:**

NMMU Madibaz Sport conducted various coaching clinics/Competitions/education courses to the SWD and George community during NMMU George Open Day.

#### **Participants:**

High schools in the South Western Districts surrounding the George Campus; school teachers and sport coaches; George Sport Academy; sport governing bodies in the SWD; local government sport and recreation officials

#### **Purpose of Project:**

The purpose of this project is to add value to the NMMU Open Day at the George Campus which was on 15/16 May 2015. The South Western Districts is a very important recruitment area for the NMMU, both from an academic and sporting perspective. Unfortunately the full potential of the area has not been exploited fully as yet and we want to take the message of NMMU via the George Open Day to the schools and communities in the form of inter-school sport events/coaching clinics on and off the George Campus. Through this initiative we want to add value to the existing Open Day program and at the same time engage with the schools and local communities on a sporting and social level. This program will bring more learners and their parents to the George Campus and the additional media coverage will reach a wider audience. The Madibaz brand will become alive in the Southern Cape for the two days in May.

#### **Benefits of project:**

##### **External community**

Introducing Madibaz Sport to the Southern Cape community

Imparting coaching knowledge and skills to the Southern Cape community

Create general awareness regarding the NMMU as a potential academic institution of choice

##### **Internal Staff and students:**

Recruit well rounded individuals to study at the NMMU

Increase the pool of talented sport students studying at the university

Increase the performance level of Madibaz Sport teams participating in Varsity Sport/Cup competitions, with resultant higher national marketing exposure of the institution



**Athletics and Volleyball Clinics in George**

## Project title: NMMU Baja Project 2014-2015

Project leader: Mr Trevor Stroud (Mechanical Engineering)

### Project leader's executive report:

Students are required to build and race a SAE Mini Baja off-road vehicle powered by a 7.5kW Briggs & Stratton engine, with a self-designed gearbox, chassis, suspension and steering controls. An annual competition is held at Gerotek Pretoria, which includes a variety of events including a four hour endurance race, hill-climb, and tractor pull. The competition rules govern safety aspects such as the roll cage, brake system and ergonomics, and students are also awarded points for the presentation of their design.

Due to the Sasol Mini Baja competition being held annually at Gerotek testing facilities in Pretoria, NMMU Racing is committed to compete every year against other local universities with a freshly-designed vehicle, with the goal of winning the competition. NMMU Racing achieved second place in the endurance event and fourth place overall in the 2015 competition, with a completely new vehicle designed and built by the student team.

eNTSA and AMTC each sponsored the SAE Baja project to the value of R15 000, to cover the logistical costs of competing in the race in Pretoria with a team of 8 students and 3 staff members. Jendemark Automation sponsored the NMMU Racing project to the value of R40 000, which was used to fund the electric and combustion Formula Student vehicle builds.



2015 NMMU Racing Baja Car

**Project title: Pay-it-Forward Community Outreach Project**  
**Project leaders: Ms Bridget De Villiers & Dr Amanda Werner**  
**(Human Resource Management)**

**Project leader's executive report:**

Care, concern and compassion should dwell in abundance in the hearts of all who call South Africa their home. In nurturing these positive attributes our second year HRM students engage in community outreach initiatives of their own choice. We refer to this as their "Pay-it-Forward" initiative. It is essential that our students identify within themselves how they can make a positive difference in the lives of those less fortunate. From hosting homework clubs and extra lessons for pupils at disadvantaged schools to offering their services at children's' and retirement homes, HIV/Aids havens, mental care facilities, and safe havens for abused women and children, these students have benefitted immensely through this opportunity to express the NMMU value of Ubuntu and develop positive citizenship behaviour. The students work in their own time and from their own budgets. In some instances these students are themselves dependent on the support, financial and otherwise, of others and so the plight of those in need often strikes to the core of "oneness". In addition, the commitment of our students is evidenced by their willingness to overcome personal barriers such as a lack of finances and transport, sometimes walking many kilometres to reach their destinations, and even completing affidavits with SAPS to obtain clearance to certain institutions. These students are regarded as role models to others. We take great pride in the sincerity with which they undertake the "Pay-it-Forward" initiative.



**Left: HRM students Unathi Gobani, Anathi Tshaka, Siphokuhle Makhubalo, Avuyile Mabhunguza and Thandiswa Mgele conducted a 'Peace campaign' to fight the xenophobic attacks in Port Elizabeth. They also conducted interviews with taxi drivers as part of their research process.**



**Right: The 2015 Pay-it-Forward students**

**Project title: Women in Engineering Leadership Association (WELA)**

**Drive-to-Success Interactive Game**

**Project leader: Dr Ann Lourens (Industrial Engineering)**

**Project leader's executive report:**

Drive to Success is an interactive game designed to support prospective students, teachers, parents, mentors and communities in their exploration of STEM careers and to assist them in making the right choice of study. By creating Drive to Success, the University can contribute to addressing the significant shortage of women in STEM fields not only in Port Elizabeth, but South Africa as a whole. In addition, Drive to Success will assist both male and female students in selecting suitable STEM fields of study that matches their personality, strengths and interests. Effective marketing of this game will mean that prospective students will learn about STEM careers and study choices in a fun, interesting and interactive way. Not only will the participant learn more about themselves, but they will also learn what would be a suitable career option and what course of study they need to enroll for, should they qualify to enter the specific career. The impact for individual learners is that they will make better informed choices and be better prepared for university studies. Informed choices could lead to an increase in retention and success and should result in an increase in throughput. Not only will this impact on individual departments, but on faculties and the university as a whole. This game can also impact on the number of women entering STEM fields, as this programme will serve to educate and inform women about STEM career options and the University could be seen as a leader in recruiting women to STEM fields. In this way, the departments, faculties, and university will contribute to increasing the number of women in the scarce skills STEM areas. Organisations in the Eastern Cape region can become involved by showcasing some of the features of their businesses and also advertise job opportunities. NMMU will become even more engaged with the industry it serves. This project is being managed under the joint auspices of WELA (Women in Engineering Leadership Association) and the Centre for Community Technologies (CCT), both based in EBEIT (Faculty of Engineering, the Built Environment and IT). Job and project opportunities will be created for media studies students as well as IT students who will be employed/tasked with development of the game. The game could lead to an increase in student numbers, retention of graduates and attract more women to the field of engineering.



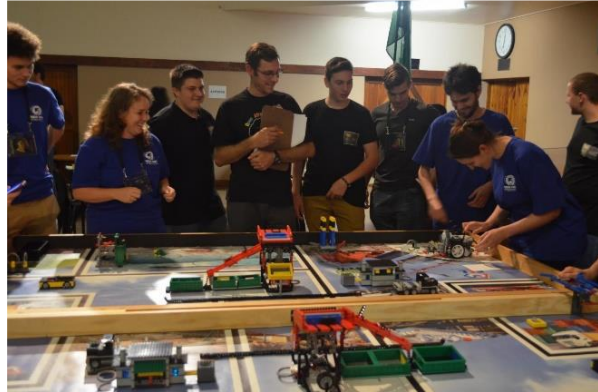
**Preliminary clips from the Drive-to-Success interactive game, featuring NMMU campuses and EBEIT-designed vehicles**

## **Project title: Lego Robotics**

**Project leader: Mr Ronald Leppan (Applied Informatics)**

### **Project leader's executive report:**

The NMMU First Lego League Regional Tournament took place on Friday, 23 October 2015. Twenty NMMU students were selected to be volunteers. In August 2015, we hosted a Challenge Release Workshop for all the team. The workshop was attended by eleven schools with their coaches. In total we had eighty-seven students and seventeen coaches. We had two volunteers, five judges and two guest speakers from EP Waste Management. In total, we had one hundred and fourteen attendees, plus a few parents who attended the workshop. First Lego League Open Africa Championships is the platform where all the First Lego League teams around the world come together to compete. This is the highest level of the First Lego League competitions. Eighty-two teams were invited from all around the world to the African Championship. The Open Africa Championship was hosted at the African Automation Fair in Johannesburg, Coca Cola Dome from the 5th to the 7th of May 2015. At the Championships five staff members from the NMMU School of ICT and an external judge from PE went to Johannesburg to assist with judging the international competition. Our 2014 First Lego League Eastern Cape Regional Qualifier winners, team TechnoSplats went up to Nationals in December 2014. At Nationals, 32 teams were invited to take part in the OAC tournament. They were placed tied at 6th position, at the Robot Game Challenge. Of the 32 teams that were at Nationals only 6 teams, including TechnoSplats, were invited to the African Championship.



**2015 First Lego League Regional Championship**



**First Lego League Open Africa Championships**



## **Project title: Mobile Community Health Learning Space Project 2014-2015**

**Project leader: Prof Darelle van Greunen**

**(Information Technology and Communication)**

### **Project leader's executive report:**

The Mobile Community Health Learning Space Project set out to use technology about social issues amongst women and children in vulnerable communities. The project makes use of a Living Lab approach and therefore also co-creation of knowledge. The beneficiaries of the project were young children and teenagers from the Northern Areas of Port Elizabeth and women from low-income backgrounds in the same areas. Community stakeholders who partnered with NMMU on this project include Dr Jeff Govender and the staff from the FamHealth MediPark in Gelvandale, members of the Gelvandale community, learners from schools in the suburbs of Gelvandale and Helenvale and the Sr Jacobs Hope Foundation.

The project has the primary aim of addressing real social problems of one of the primary feeder areas of the NMMU. Social problems include health, education, substance abuse and many more. In accordance with Vision 2020 and NMMU's values this initiative sets out to achieve respect for others, acting in the true spirit of Ubuntu with a view on creating pockets of excellence in the Northern Areas of Port Elizabeth. Students from different levels are involved in the project in terms of practical training, skills transfer and research.

This project contributes to making public engagement a distinctive feature of education in the Faculty of Engineering, The Built Environment and Information Technology (EBEIT) and to the development of rigorous, systematic evaluations of all outreach and engagement initiatives in EBEIT. This was achieved by active participation of different members of staff and students of EBEIT. In addition, results of this project were shared using peer-reviewed conference papers and articles in the local press. It also resulted in radio interviews and recordings for television. The project enhanced existing partnerships and attracted new industry and community partners to connect industry and community engagement to on-campus research and educational strengths. The project also continues to promote stronger collaborations and partnerships between the university and its stakeholders that can strengthen research. The project continues to contribute to the scholarship of engagement as it is not only a real-life intervention but also creates best practices and lessons learnt that can be applied to other initiatives.



**Left and right: Information technology making a difference in the lives of Northern areas communities.**

## **Project title: NMMU Racing DibaE Electric Race Car 2014-2015**

**Project leader: Mr Bryndan Roberts (Mechatronic Engineering)**

### **Project leader's executive report:**

This project is effectively Phase 3 of the Formula Student project. The DibaTwo (Phase 2) combustion car is complete, but the electric vehicle (DibaE) is being developed. The aim is for students to design, build, and test an electrically powered race vehicle, for competition at racing events, publicity, a challenge for interested students, and to provide a research platform. Electric vehicle technology is relatively new, thus the project involves a significant amount of research, into such areas as brushless DC motors, motor controllers, battery packs and battery management systems, control systems and communications between vehicle systems. The vehicle also requires Mechanical design as does any vehicle. Students participate in the project as part of a team. Over the years, there have been members from other disciplines (i.e. in addition to engineering), but at present the team comprises 2 staff members, 15 BEng(Mechatronics) students, and 1 BTech(Electrical) student. Vehicle development has been over a number of years, but recently the focus has been on the development of a suitable Lithium-Ion battery pack & battery management system, powertrain management (including thermal considerations i.e. cooling as required by the motor, motor controller, and battery pack), and communication between modules of the vehicle. The vehicle has provided a platform for a number of BEng(Mechatronics) 4<sup>th</sup> year projects. More 4<sup>th</sup> year projects, as well as MEng and PhD projects, are envisaged. NMMU Racing also provides students with an opportunity for doing their work-integrated learning, i.e. practical training. Team members are given workshop training as part of their learning, so that they will be competent to operate manufacturing equipment. In addition to interdepartmental collaboration, the project has provided the opportunity for collaboration between NMMU and other institutions, namely the University of Pretoria, the Cape Peninsular University of Technology, Ostfalia University Wolfsburg, and Ingollstadt University of Technology. Links have been forged with industry partners, for such items as sponsorships, manufacturing support, training, technical support, software support, and event support. Companies that have been involved include: Volkswagen SA & VW Racing, Continental SA, Jendamark, Specialist Composite Engineering, ESTEQ, SKF Bearings, Red Bull. Students that have participated in NMMU Racing are highly sought after by local companies, as they will have gained specialist knowledge, and will have demonstrated that they are motivated and have the ability to work in a team.



**NMMU's electric racing car, DibaE**

**Project title: Polymer Science and Technology Engagement Outreach –  
Linking Industry and Learners**

**Project leader: Mr Fanus Gerber (Chemistry)**

**Project leader's executive report:**

The aim of this project was to engage school learners and teachers and expose them to Polymer Technology and the career opportunities that exists in this scientific field. The project was initiated with a first visit to Grey High School to kick off this engagement initiative during Grey's evening open day in March. I received a request to come back this year (2016) to do a full presentation to the grade12 science group. A presentation at NMB Science center in Uitenhage was followed by a presentation to teachers for the Department of Education during the National Science Week held in August. The next phase of the project was rolled out in association with the University's STEM programme where as many as eight visits was made to the Missionvale campus to promote Polymer Technology to targeted audiences that has been distilled by the STEM programme, namely those learners from schools in the metro that have grade 11 and 12 mathematics and science as choice subjects. This also included a special session for science teachers that was well attended and very well received to the extent that there was even interest from some of the teachers to come and enroll for the Polymer Technology qualification

The project has provided staff with an opportunity to learn and grow and students to gain experience and hopefully the message of the excellent career opportunities that is available in the field of Polymer Technology, especially in the Eastern Cape has fallen on fertile ground.



**A learner making a rubber ball from rubber latex at the NMB Science Center in Uitenhage during a presentation. Note the picture in the background showing the rubber tree tapping process.**

## **Project title: Science to Schools Outreach 2014-2015**

**Project leader: Mr Gletwyn Rubidge (Chemistry)**

### **Project leader's executive report:**

The project aims to steer a greater number of children into science related careers. To achieve this aim the Science to Schools project takes fun and exciting science experiments to schools. We not only use existing experiments, but actually created many of our own adding a research component to the project. The focus is on all grades particularly the earlier grades where young budding scientists first step onto their future paths. Disabled children have also benefitted from this program in 2015. In addition we leverage the process by teaching others to do what we do – i.e. focus on teachers as well as children so that the teachers may carry it forward independently. 2014 was a testing and pilot phase that was well received by all and 2015 involved testing and refinement. The project has been a learning path for children, teachers and even for NMMU students and staff who assisted. A series of syllabus-related science experiments has been developed for each school grade – primary and secondary. In 2014 a portable fume hood and chemical filter has been developed by a BTech Chemistry student – this unit is very helpful to allow us to perform reactions that produce smoke or noxious gases in any venue that does not have a fume hood. In 2015 a BTech student developed recycling procedures for costly iodine and implemented the use of a Jacobs ladder to show atomic spectra. Science displays and shows have been developed for introducing scholars (or any non-scientist) to the ways in which chemistry and physics are the basis of our modern lifestyles. In 2016 the Chemistry department will register a Master's student to research Science Education as part of the Science to Schools outreach project. A "Science Rocks Woohoo" Facebook page was created to promote the Science to Schools work engagement project on social media.



**Left: Interactive chemistry at Northern Lights school for disabled children.**

**Right: NMMU student Tarryn Swartbooi showing children how make Calcium alginate encased water globules**

## **Project title: Mobile Clinical Laboratory Project 2014-2015**

**Project leader: Prof Esmeralda Ricks (Clinical Care Studies)**

### **Project Leader's executive report:**

The number of under- and post-graduate nursing students has increased steadily over the past five years. Due to the increased numbers and limited practical placement areas for our students, a need arose for us to explore how we could extend the teaching and learning platform of our students in the community. A truck was purchased and adapted as a mobile clinical laboratory (funding was received from the DoE Clinical Training Grant). Students are able to practice their counseling skills, perform screening tests (e.g. monitoring blood pressures, blood sugar, cholesterol testing), conduct assessments, diagnose and treat under the direct supervision of their lecturers and mentors in the community. Extensive health education on various health topics can also be provided to individuals, families and communities. Knowledge is power, thus through health education all community members are taught how to take responsibility for their own health and also how to recognize the need to consult with professionals when necessary.

The Mobile Clinical Simulation Laboratory will operate throughout the year in different communities where the need for such care is the greatest. All disciplines in the Department of Nursing Science will use the Mobile Clinical Simulation Laboratory. It is envisaged to develop this project into a multidisciplinary team approach by including other departments in the faculty who need to do outreach projects for example the Departments of Psychology, Social development, Human Movement Sciences and Pharmacology. Discussions have already taken place between the Departments of Nursing Science and Psychology.

The project objectives are to:

- Provide a wide variety of experiential learning opportunities for students with regard to home based nursing care thus ensuring better skilled nurses
- Provide the necessary resources to facilitate the mentors in teaching home based nursing care skills to students at the point of care
- Provide a base for students to work from in the community and also privacy for student debriefing before leaving the area each day. (Currently mentors and students are using the homes of the willing volunteers in the community which does not promote privacy and confidentiality. Students need to debrief because of all the challenges that they face in the community.)
- Enhance the interdisciplinary and multidisciplinary team approach to healthcare through extending an invitation to the psychology and social work students to accompany the nursing students on the mobile home based nursing care clinical laboratory
- Empower community members and the Community Care Workers through extensive health education, health promotion campaigns and by assisting the community to recognize their needs



**NMMU's Mobile Health Education Platform**

**Project title: Online Continuing Education Programme  
for Mental Health Professionals**

**Project leaders: Prof Louise Stroud and Dr Ruth Stewart (Psychology)**

**Project leader's executive report:**

Each year mental health professionals registered with the HPCSA must obtain a mandatory 30 Continuing Professional Development (CPD) points. However, the courses are generally expensive, held during work hours, oversubscribed, and only available in major centres. This project serves to make continuing professional development more affordable, convenient, and easily accessible at any time and any place. This is of particular importance for those mental health professionals in the more rural areas of South Africa. We have a database of over 1000 mental health professionals who are working in the Eastern Cape, many of whom are alumni. We aim to grow this database to include professionals from other provinces, and internationally. Leading experts in specialized areas of psychology will be invited to create courses for the online CPD website, in addition to the work of NMMU's Psychology Department's own staff. We also wish to use this opportunity to strengthen our established collaborative relationship with Elizabeth Donkin Hospital and the Department of Health. Mr. Andre Mostert, of the University of East London, Royal Docks Business School, has expressed an interest in working collaboratively, and we will explore opportunities. The online CPD courses will be available to all interested parties, with the specific aim of providing high quality, relevant, practical, educational opportunities for postgraduate mental health professionals registered with the Health Professions Council of South Africa (HPCSA). These courses will all be accredited and assist practitioners to fulfil their mandated professional obligation to obtain 30 CPD per year (HPCSA). In the process they will improve their skills and knowledge, thus benefitting the communities they serve. In addition, the Psychology Department at NMMU will increase its educative reach, focus on post-master's level education, and establish a long-term source of self-sustaining revenue.



**Dr Ruth Stewart: Online Continuing Education Programme  
for Mental Health Professionals**

## **Project title: Cyber Safety Calendar Competition 2014-2015**

**Project Leader: Prof Johan van Niekerk**

**(Centre for Research in Information and Cyber Security)**

### **Project leader's executive report:**

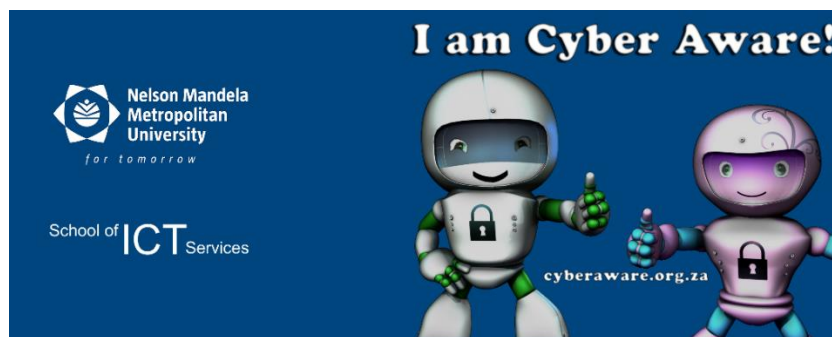
Most South Africans have a culture of personal security. We're all used to locking our doors at night and we're very aware of possible risks in and around our homes. Parents also routinely teach their children how to be aware of safety and security risks and how to deal with possible incidents. However, this culture currently does not extend to cyberspace. Most South African parents are themselves not equipped to transact safely online and is often unaware of the risks cyberspace poses to children. They are thus not equipped to teach their children how to be safe whilst online. The responsibility to ensure the safety of children in cyberspace thus falls largely to society in general. However, there are currently very little formal efforts to address this problem.

This project aims to serve all schools in the Nelson Mandela Metropolis and later on to serve the entire South African community of online users. The beneficiaries of the project include, schools, school children, parents, and teachers.

We provide schools and teachers with cyber security educational material to use in classrooms. We provide principals with guidance regarding policies to govern the use of cyberspace in school, deal with cyber bullying, etc. We also provide training regarding cyber security to teachers.

We provide school children with cyber security resources and we engage them via hand-outs, our contest, and through cyber security talks at schools and other educational venues, i.e. the Science Center in Uitenhage. We provide parents with cyber security resources in order to help them protect their children from harm whilst online. This include guidance on configuring parental controls on mobile devices, talks relating to cyber bullying, etc.

At the NMMU School of ICT we have been active as researchers in the fields of information and cyber security for more than 20 years and currently have the single largest research unit focusing on this subject area in South Africa. We are especially interested in human factors in information and cyber security and are extremely active in IFIP technical committees 11.8 and 11.12, which are the primary international associations of researchers focusing on these problems. As such we decided that it would be appropriate for us to actively try to address this problem as part of our social engagement activities. The poster competition is one of our flagship projects towards this end. The contest is not "just" a contest but rather the culmination of many other efforts to foster a culture of cyber security awareness amongst school children. Other efforts include the development of material for teachers, visits to schools to talk to children, the development and distribution of educational games regarding this topic and many more.



**Cyber Sid and Sindi - mascots for the NMMU Cyber Safety Engagement Project**

**Project title: Arts Meets Science Meets Place**  
**Project Leader: Ms Mary Duker and Prof Richard Cowling**  
**(School of Music, Art and Design)**

**Project Leader's executive report:**

Our project is aimed at bringing together staff and postgraduate students from various entities in the sciences and humanities at NMMU in a rural setting of extraordinary biodiversity but also with a long history of human conflict and human-induced environmental degradation. The site is the farm Kaboega a few hours north of Port Elizabeth in the northern foothills of the Zuurberg range. It comprises several farms that were consolidated under conservation management in the early 1990s. Our intention is to expose participants to three issues: the mathematics of symmetry and design in nature; environmental and sociological drivers of rural decline and abandonment; biome-based sense of place and belonging. All participants are then required to express their experience creatively, in art or writing. The project builds on the first Art meets Science meets Place event held at Kaboega on the 10-14 June 2013. The event was highly successful and was showcased at an exhibition that ran from 29 Aug to 4 Sep. The project supports the NMMU in the following ways: it actively promotes environmental consciousness, it builds an awareness of both natural and social history, it draws attention to the challenges, both past, present and future, that we face. It sets out to build cross/trans disciplinary connections and synergies between academics and students, in a way that promotes agency and highlights the need for mutual respect and shared responsibility across the disciplines. In the project we adopt a dialogical approach to teaching and learning- during their time in the field students and academics work together in engaged communities of practice. The inter- disciplinary nature of the experience will enhance student ability to interact positively with diverse ranges of people beyond the disciplinary classroom (enhancing the student's graduate attributes).



**Kaboega 2015: Arts meets Science meets Place**



## **Project title: NMMU George Campus Heritage and Cultural Centre**

**Project Leader: Mr Martin Loubser (George Campus)**

### **Project Leader's executive report:**

A living, fully functional Heritage and Cultural Centre is envisaged as a means of acknowledging the rich history of NMMU in George. This initiative will include the recognition and display of memorabilia of Saasveld, the PET, UPE and Hurteria to be nurtured and preserved for those after us. It is crucial that the NMMU brand, values and name be utilized to its full potential to ensure the pathway of the George Campus into the future by eloquently remembering the past, but vibrantly proceeding with the training of future leaders for tomorrow. During a visit by the Chancellor and Vice Chancellor in October 2014, Prof Derrick Swartz pointed out that he had mandated the George Campus Principal to ensure the vibrancy and sustainable growth of the NMMU George Campus through a "town and gown" engagement with the city and region to strengthen the university's relationship with its community. The prestigious farmstead on campus known as Pampoenkraal (to be renamed George Campus Cultural and Heritage Centre) will be used as a "newseum" where *memorabilia* of the previous institutions is managed, stored and cared for with NMMU branded items. The idea is to allow visitors to the "newseum" and to have electronic information of the previous institutions and NMMU readily available. Due to easy access to information via several applications, museums are not frequented often in modern times. It is envisaged that the center double as an area where pieces of art are displayed, music lessons presented, a dinner/coffee be managed whilst the main house is used as guest house for accommodation of visitors to the campus. The center would be the perfect space within which the community could be united by the arts, book readings, piano recitals, an open air concert in the quad next to the George Campus library- but to mention a few. By diversifying the offerings presented at the center, it is possible to ensure a steady income for the center to sustain itself whilst promoting visits to the campus, exposing the community to the wonderful surroundings of the campus all whilst courses presented at the NMMU are displayed. Community leaders will act as catalysts to bring the "good news" of a Heritage and Cultural Centre to schools, churches, and clubs and to use the George Campus as a base from where community projects will be launched and planned.



**Pampoenkraal, George Campus, home of the envisioned NMMU Heritage and Cultural Centre**

## **Project title: Bambanani Mental Health Project 2014-2015**

**Project Leader: Ms Lisa Currin (Psychology)**

### **Project leader's executive report:**

The Bambanani Project was positioned within the current context of enhancing Mental Health in South Africa. Specifically, the aim of the project was to enhance the wellbeing and mental health of vulnerable groups (women, children, the elderly) in the Nelson Mandela Bay Metropole. The word 'bambanani' was selected to indicate the coming together of NMMU's Psychology Clinics (UCLIN) with the communities we serve through a state of psycho-social holding and empowerment. UCLIN comprises psychology clinics on both the South Campus and Missionvale Campus and a number of partnerships with various community organisations have been strengthened through the Bambanani Project. The project provided both undergraduate and postgraduate NMMU Psychology students with unique developmental opportunities where they could develop more holistically as young professionals through the practical experience of working with communities. Throughout all aspects of the Bambanani project, students had opportunities to live out the NMMU values. Through the Bambanani Project we were able to enhance the health and wellbeing of children in the Nelson Mandela Bay Metropole by focusing on scholastic assessment and protective, health enhancing behaviours. Children were assessed through group screenings and appropriate recommendations for school placement and remedial assistance was made. Learners from the Missionvale area attended protective behaviour workshops, a preventative measure targeting the risk of abuse of children in the area. Furthermore, lifeskills and psycho-educational workshops were also conducted with child and youth care centers. Through the Bambanani Project we continue to enhance the psycho-social wellbeing of adolescents at a youth care center which provides a home for male street children or boys whose home environments are not conducive to development. Various interventions were conducted with the boys and scholastic assessments were conducted for some of the boys who had no foundational learning in place and could not be placed in mainstream schooling. The group therapy was then expanded to include sixteen sessions of equine assisted therapy for three of the boys. Equine Assisted Therapy has been shown to be effective in addressing trauma, delayed development as well as enhancing empathy and teamwork. Through the Bambanani Project we empower adults in the Nelson Mandela Bay Metropole to provide protective and health enhancing functions for their peers and families and home-based care workers across the NMBM received support and psycho-education on a monthly basis. Furthermore, prototypes of educationally stimulating toys made from upcycling (recycling) common household materials were made with the aim of teaching pensioners how to make these toys for children in the community. This is in line with UCLIN's commitment towards environmental sustainability and awareness as well as community empowerment.



**Bambanani equine therapy (left) and toys created through upcycling (right).**