**What the High Performance Complex (HPC) offers**

NMMU’s new High Performance Complex (HPC) offers academic programmes and services in the field of Human Movement Science and Dietetics. Their Biokinetics and Sport Science Unit (BSSU) offers professional health promotion, restorative and rehabilitative services (biokinetics-related) as well as performance enhancement and other sport-related services (sport science related) to both the community and elite athletes.

The HPC is made up of a new double-storey Human Movement Science centre, with two gymnasiums, laboratories, lecture halls, biokineticist’s consultation rooms, a dietetics wing and research sprint facility.

The R34m building is situated alongside 12 tennis courts, three football fields, three cricket fields, two netball courts, a grass athletics track, a multi-purposed 10 000-seater stadium for rugby and football, and an Olympic standard athletics track.

There’s also an indoor sports centre which hosts basketball and volleyball courts with seating for 4 500 spectators and a recently-expanded fitness and aquatic centre, which houses gyms, two heated pools and six squash courts.

A new hockey astroturf, scheduled for completion at the end of 2015, will be located just 150m from the new centre.

**Research sprint track**

The facility boasts the only 90m fully-enclosed indoor tartan track in Africa which includes the state-of-the art integrated research analysis system. This integrated system consists of the Vicon 3D motion analysis system, high speed cameras, Kistler force plates embedded into the track, and the world’s first piezoelectric double force plate starting blocks manufactured by Kistler.

The system will not only be used for sophisticated biomechanical analyses of sprinting performance but also for other applications such as speed development in other sports.

**Rehabilitation**

It will also be used for rehabilitative purposes such as monitoring the effects of a biokinetic training programme on the movement efficiency of patients eg. stroke, neurological and elderly patients as well as amputees.

“So while this sounds like it caters only for the elite of athletes, this technology allows us to assess and analyse gait parameters for any population group, almost any activity of daily living, movement inefficiencies or movements that may be associated with a higher risk of injury,” says NMMU BSSU senior biokineticist Lisa Grenfell.

**HPCSA registered**

The facility is also a fully-functioning Health Professions Council of South Africa (HPCSA) registered practice, offering NMMU students supervised work and an integrated learning site within the university.