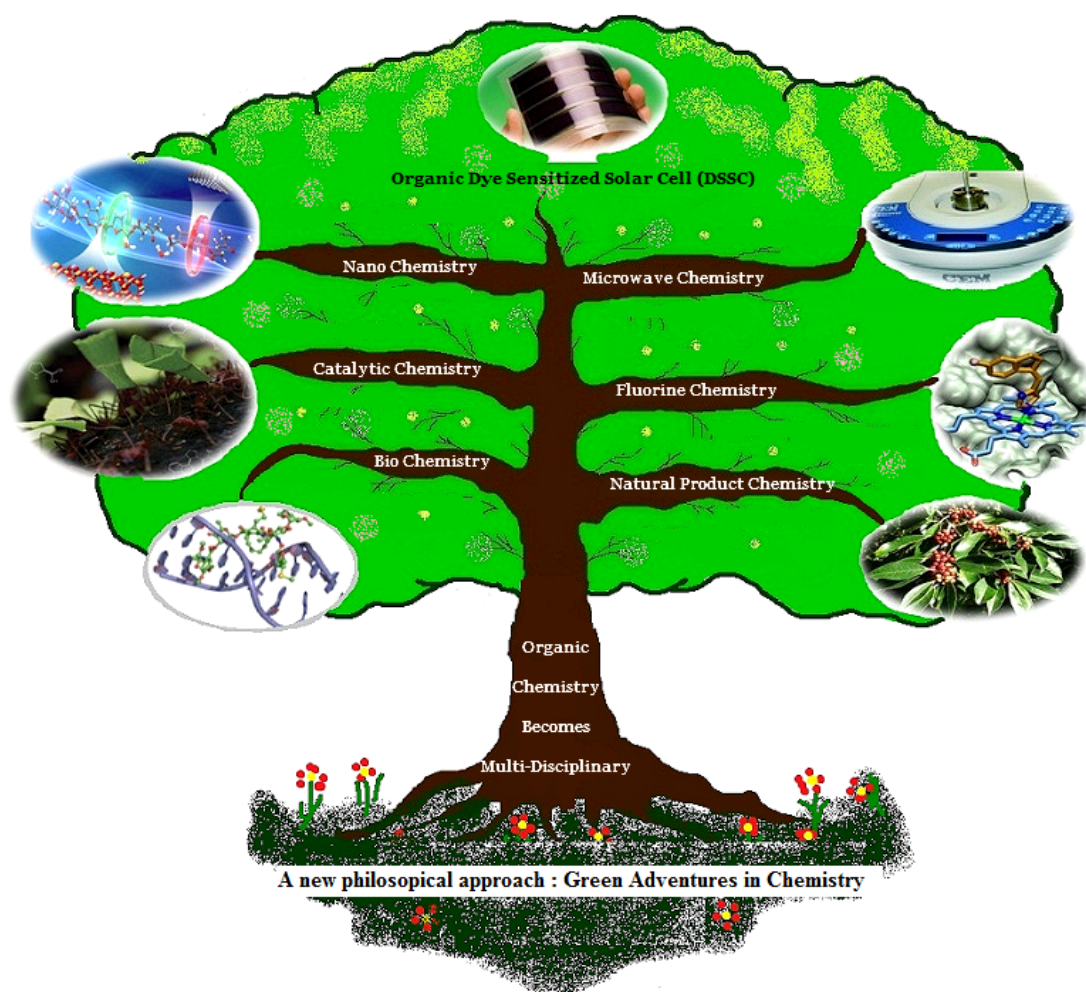


ORGANIC SYNTHESIS, NANOCHEMISTRY AND GREEN CHEMISTRY



Professor Robert Gengan has a wide range of research interests cutting across synthetic organic chemistry, organometallic chemistry, medicinal chemistry, drug discovery, nanochemistry and catalysis. His fundamental aim is to address important health issues with his research group, such as cancer, tuberculosis and HIV/AIDS; energy issues such as dye-sensitized solar cell (DSSC); and catalysis for industrial applications. Green chemistry methodologies such as microwave irradiation techniques are used to assess heterogeneous catalytic systems in multi-component reactions schemes. Metal-based magnetically recoverable nano-catalysts are produced in environmentally benign solvents including aqueous mediated chemistry reactions. The research also supports local industries in formulating novel dyes for textile, food and in organic solar cell applications. Phytochemical studies are undertaken to elucidate novel natural products with interesting biological properties.

PROF R M GENGAN (PRINCIPAL INVESTIGATOR)



CURRENT RESEARCH ACTIVITIES

GROUP MEMBERS:

Dr. K. Anand (PDF)

Doctoral students:

Mr. Talent R Makhanya

Mr. M Sureshkumar

Mr. T Muthu

Mr. M Arul

Mr. A Vasanthkumar

Masters students:

Mr. S Nkosi

Mrs. O A. Jaiyeola

Ms N Ndamane

Ms S Raghunath

Ms R Nadar

PAST STUDENTS:

Dr P Pitchai (PDF)

Ms B Nirvashini (Masters)

Mrs. HG Ndaba (Masters)

Mrs. TS Ngcobo (Masters)

COLLABORATORS:

1. Professor Ata, A., Department of Chemistry, University of Winnipeg, **Canada.**
2. Professor Lee, HH., Bio and Nano Chemistry, Kookmin University, **South Korea.**
3. Professor Mohan, PS., Department of Chemistry, Bharathiar University, **India.**
4. Professor Pitchai, P., Government Arts College, Kumbakonam, **India.**
5. Professor Kabilan, S., Department of Chemistry, Annamalai University, **India**

MANAGEMENT OF RESEARCH PROJECTS AND PROGRAMME:

1	South Africa – South Korea Bilateral programs (2012-2015)	R 360 000.00
2	Rediba (2006-2011)	R 693496.00
3	TDGR (2002-2003)	R 52 500.00
4	IRTG (2001-2002)	R 23 500.00
5	Technikon Program (1996-2000)	R 167119.00
		TOTAL R 1296615.00