UNIVERSITY of ABERDEEN

By authority of the Senatus Academicus
the Degree of
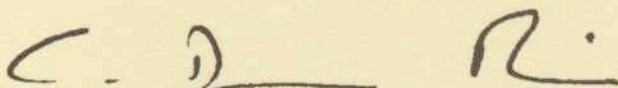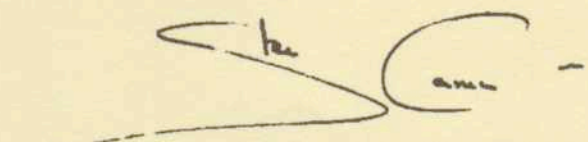
Doctor of Philosophy

was conferred upon

DARREN HUGHES

ON 8 JULY 2003

Principal & Vice-Chancellor

University Secretary