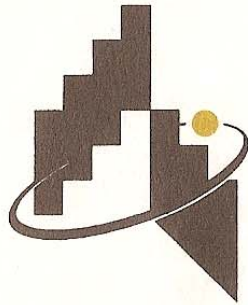


CERTIFICATE



GLOBAL KNOWLEDGE

hereby certifies that

RICH WILLIAMS

has successfully completed

TELECOMMUNICATIONS FUNDAMENTALS II

FEBRUARY 10 - 11, 2000

Approved for 1.4 CEU's
<http://am.globalknowledge.com>

A handwritten signature in black ink, appearing to read "Greg Roels", is written over a horizontal line.

Greg Roels
Chief Operations Officer