

**CURRICULUM VITAE**



**PERSONAL DATA**

NAME: Jorge Cuauhtémoc Torres Guzmán		
DATE OF BIRTH: 1958-08-24	BIRTH PLACE: Morelos	TELEPHONE: + 52 (442) 211 0572

**EDUCATION**

Ph. D. Imperial Collage of Science, Technology and Medicine (ICST&M, England)	Degree awarded
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**OTHER STUDIES**

<u>Master in Science ICST&amp;M.</u> <u>Mechanical and Electrical Engineering.</u> ITESM. <u>Imperial College Diploma.</u> Mechanical Engineering. ICST&M. <u>High Level Management.</u> ITESM. <u>Management Abilities Development.</u> ITESM.	Degree awarded Degree awarded Diploma Diploma Diploma
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**PROFESSIONAL EXPERIENCE IN METROLOGY**

PERIOD	RESPONSIBILITIES
December 1993 up to date	Head, Force and Pressure Metrology Division, CENAM
1996 (June to November)	Mechanical Metrology Area Responsible, CENAM

**TRAINING IN METROLOGY**

SUBJECT	VENUE	PERIOD
<i>Training Workshop on Measurement Technology for developing Countries</i>	Beijing, China	1996
<i>Mass Metrology Course</i>	CENAM	1999
<i>Assessment of Laboratories under the ISO/IEC 17025 Standard Workshop</i>	PTB (Germany) at CENAM	2000
<i>Statistics and Metrology Workshop</i>	PTB (Germany) at CIMAT	2001
<i>Laboratory Assessment according to ISO/IEC 17025 Standard Course</i>	EMA, Mexico	2001
<i>Evaluation of Uncertainty in Measurements Workshop</i>	CENAM	2003
<i>Formation of Consultants Course</i>	ITESM. Queretaro.	1999
<i>Formation of Instructors Course</i>	ITESM. Queretaro	2003

**ADVISORY, TALKS GIVEN AND IMPARTED COURSES IN METROLOGY**

TITLE	NUMBER
<b>Talks</b> In metrology: pressure, vacuum, force, torque, hardness, general metrology, uncertainty in measurements, laboratory quality.	<u>&gt;60</u>
<b>Advisory</b> Pressure Vacuum Force Torque	<u>47</u> 29 3 12 8
<b>Courses</b> Pressure metrology Advanced pressure metrology Vacuum metrology Force metrology	<u>109</u> 29 2 1 10



Mexico	Force and Pressure Metrology Division
Advanced force metrology workshop	2
Universal testing machines force metrology	1
Torque metrology	7
Advanced torque metrology workshop	1
Mechanical metrology	1
Hardness metrology	1
Introduction to metrology	3
Evaluation of uncertainties in measurements	2
Introduction to metrology and evaluation of uncertainties in measurements	28
Measurements quality assurance	2
Quality and metrology	2
Metrological requirements of the ISO 9000 standard	2
Quality assurance in analytical laboratories	1
Measurement standards comparison	2
Metrological auditing	1
Internal training in metrology for CENAM members	10

**PAPERS, PUBLICATIONS AND PATENTS**

<b>Papers</b>	<b>48</b>
Pressure metrology	17
Vacuum metrology	2
Force metrology	14
Torque metrology	7
Quality (related to metrology)	3
Other related topics	5
<b>Publications</b>	<b>3</b>
Technical publications (50 pages o more) on sale at CENAM's library:	<b>First Edition</b>
1) Torque Metrology,	December 1999
2) Pressure Balances,	December 1999
3) Liquid Column Manometers	December 1998
<b>Patents</b>	<b>Number</b>
Patents (CENAM) on devices related to measurement equipment	<b>2</b>

**LANGUAGES**

English advanced. French, basic. Italian, basic. Portuguese, elemental.
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**SOFTWARE**

MS Office 9x – 2000 – XP, Windows 9x - Me – 2000- XP, AutoCAD 13 – 14.
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**OPERATION OF MEASURING EQUIPMENT**

Several equipment in measurement of Pressure and vacuum, Force and torque, Hardness
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**OTHERS**

<p><b>Professional Memberships</b></p> <ul style="list-style-type: none"> <li>o CCM, force and torque working group.</li> <li>o CCM, pressure working group.</li> <li>o IMEKO, TC16 (pressure and vacuum)</li> <li>o IMEKO, TC3 (mass, force and torque).</li> <li>o SOMI, Sociedad Mexicana de Instrumentación (Mexican Society of Instrumentation), in Mexico.</li> <li>o AMIME, Asociación Mexicana de Ingenieros Mecánicos y Electricistas (Mechanical and Electrical Engineering Association).</li> <li>o CIME, Colegio de Ingenieros Mecánicos y Electricistas (Mechanical and Electrical Engineering College), in Mexico.</li> <li>o IMech E, Institute of Mechanical Engineers, in England.</li> <li>o ASME, American Society of Mechanical Engineers, in United States.</li> </ul>
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- *VDI*, in Germany.

**Awards and Designations**

- Award from the Ministry of Economy (Mexico) for the support in force and pressure metrology to producers 1995 -1996.
- Merit for work performance, CENAM, 1994-1995.
- Best paper award NCSL International 2001, Washington EUA.
- Best paper award Congreso Internacional de Instrumentación 2001 (International Instrumentation Congress, SOMI), Mexico.
- SIM pressure and vacuum, force and torque, and hardness working groups chair from 1998 to 2001.
- SIM pressure and vacuum working group chair since 2001.
- Mexico's representative to the 7<sup>th</sup> meeting of the CCM (CIPM). Sévres, France. 1999.
- Mexico's representative for Mechanical Engineering in NORAMET, since 1994. Rapporteur for the period 1998-2000.