

# TRIBOLOGY: FRICTION, WEAR AND LUBRICATION

A SUMMER PROFESSIONAL PROGRAM

JUNE 21 – 25, 2010

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA 02139-4307

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<b>Lecture Time</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
9:00-10:00 AM	<b>1.</b> Course Overview (NS)	<b>5.</b> Boundary Lubrication (SJ)	<b>9.</b> Delamination Wear (SJ)	<b>13.</b> Seizure, Melt Wear (NS)	<b>17.</b> Abrasive/Erosive Wear (NR)
10:00-10:30	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
10:30-12:00 Noon	<b>2.</b> Surface Topography, Surface Properties (NS)	<b>6.</b> Solid-Film Lubrication (SJ)	<b>10.</b> Undulating Surfaces (NS)	<b>14.</b> Oxidative/Corrosive Wear (NS)	<b>18.</b> Nanotribology (NR)
12:00-1:30 PM	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
1:30-3:00	<b>3.</b> Mechanics of Solid Contacts (NS)	<b>7.</b> Fluid-Film Lubrication (SJ)	<b>11.</b> Adhesive Wear (NR)	<b>15.</b> Wear-Mechanism Maps (NS)	<b>19.</b> Lab Tour
3:00-3:30	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
3:30-5:00	<b>4.</b> Mechanisms and Models of Friction (NS)	<b>8.</b> Mechanisms and Models of Wear (SJ)	<b>12.</b> Tribological Testing (NR)	<b>16.</b> Wear of Ceramics (SJ)	
5:00-5:30	<i>Group Discussion</i>	<i>Group Discussion</i>	<i>Group Discussion</i>	<i>Group Discussion</i>	

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**Presenters**

NS: Dr. Nannaji Saka

SJ: Dr. Said Jahanmir

NR: Dr. Nicholas X. Randall

*Program Dinner*  
*Wednesday, 23 June 2010, 6:30 PM*  
*Legal Sea Foods, Cambridge, MA*