

Contents

1	Introduction	1
1.1	Occupational Accidents and Injuries	2
1.1.1	Manufacturing Industry	2
1.2	Types of Accidents	3
1.3	Types of Fall	5
1.3.1	Elevated Fall	5
1.3.2	Same-Level Fall	6
1.4	Slip-and-Fall Approaches	6
1.4.1	Epidemiology Approach	6
1.4.2	Biomechanics Approach	7
1.4.3	Tribological Approach	7
1.4.4	Human-Centered Approach	8
	References	9
2	Factors Leading to Slip-and-Fall Incidents	13
2.1	Seven Factors of Slip-and-Fall	13
2.2	Leading Factors by Rank	14
	References	17
3	The Relationship Between Coefficient of Friction (COF) with Floor Slipperiness and Roughness	21
3.1	Measuring Device	21
3.2	Test Condition	22
3.3	Friction and Roughness Measurement	25
3.4	Floor Slipperiness Measurement	26
3.5	Floor Roughness Versus COF	30
	References	31
4	Human Perception of Slipperiness Through Measured COF	33
4.1	Method of Analysis	33
4.2	Subjective Score Under Different Surface Conditions	34

4.3	Subjective Score on Different Types of Floor	34
4.4	Correlation Between Perceived Slipperiness and COF	35
	References	37
5	Conclusion.	39
5.1	Significance to the Researchers or Academician	40
5.2	Significance to the Industrial Practitioners	40
5.3	Recommendations for Future Work	40

Quantitative and Qualitative Factors that Leads to Slip
and Fall Incidents

Syahrom, A.; Ahmad, N.A.; Tap, M.; Rohani, J.M.

2017, XIII, 41 p. 20 illus., 19 illus. in color., Softcover

ISBN: 978-981-10-3285-1