

A trip to Busan for presenting paper “Design of Loading Setup for Craniovertebral Junction” in

The 3rd Joint International Conference on IMSD The 7th ACMD 2014
Multibody System Dynamics Asian Conference on Multibody Dynamics



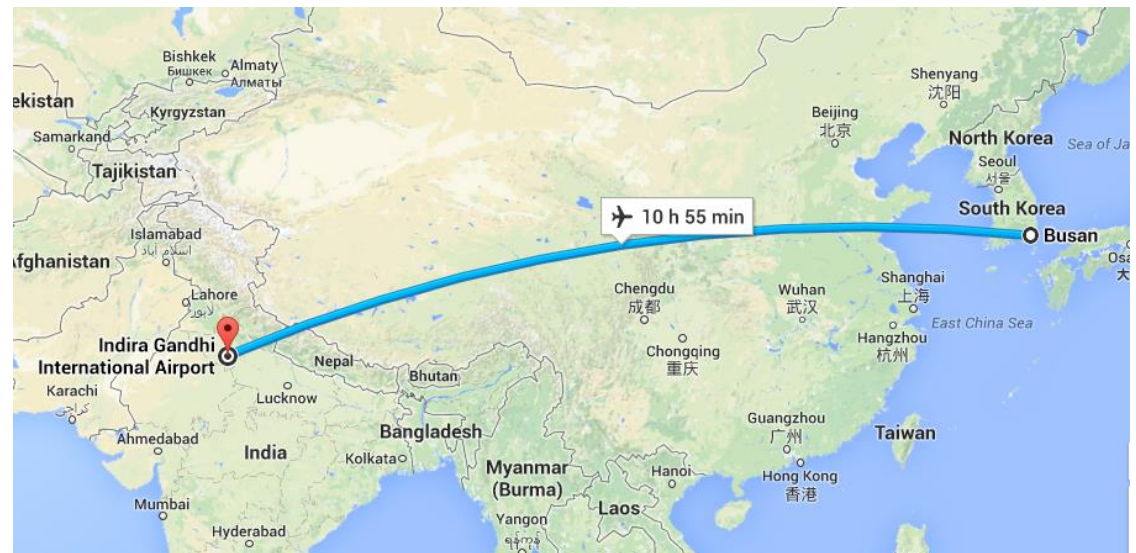
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Content:

- Jagalchi (Fish Market)
- The paper



Busan city



Jagalchi on Nampo Port



Jagalchi (Fish Market)

- Fresh sea food
- Dried sea food
 - All shorts of fish
 - Eel
 - Squid
 - Shellfish
 - Mollusks

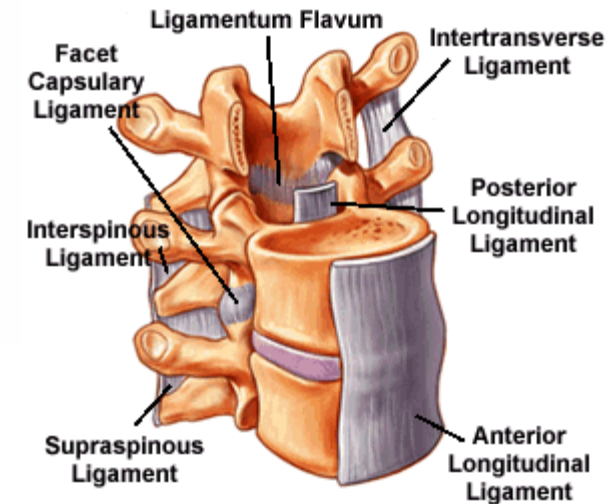
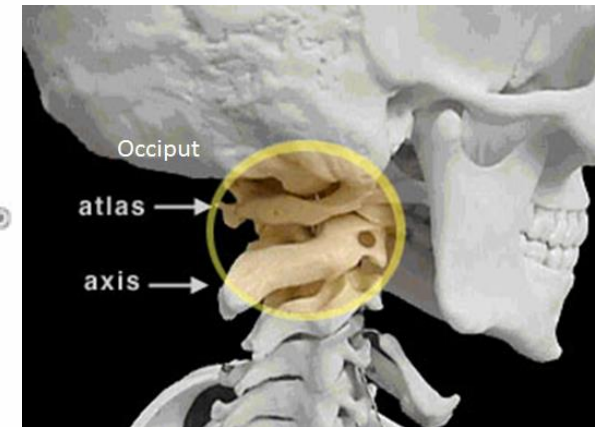
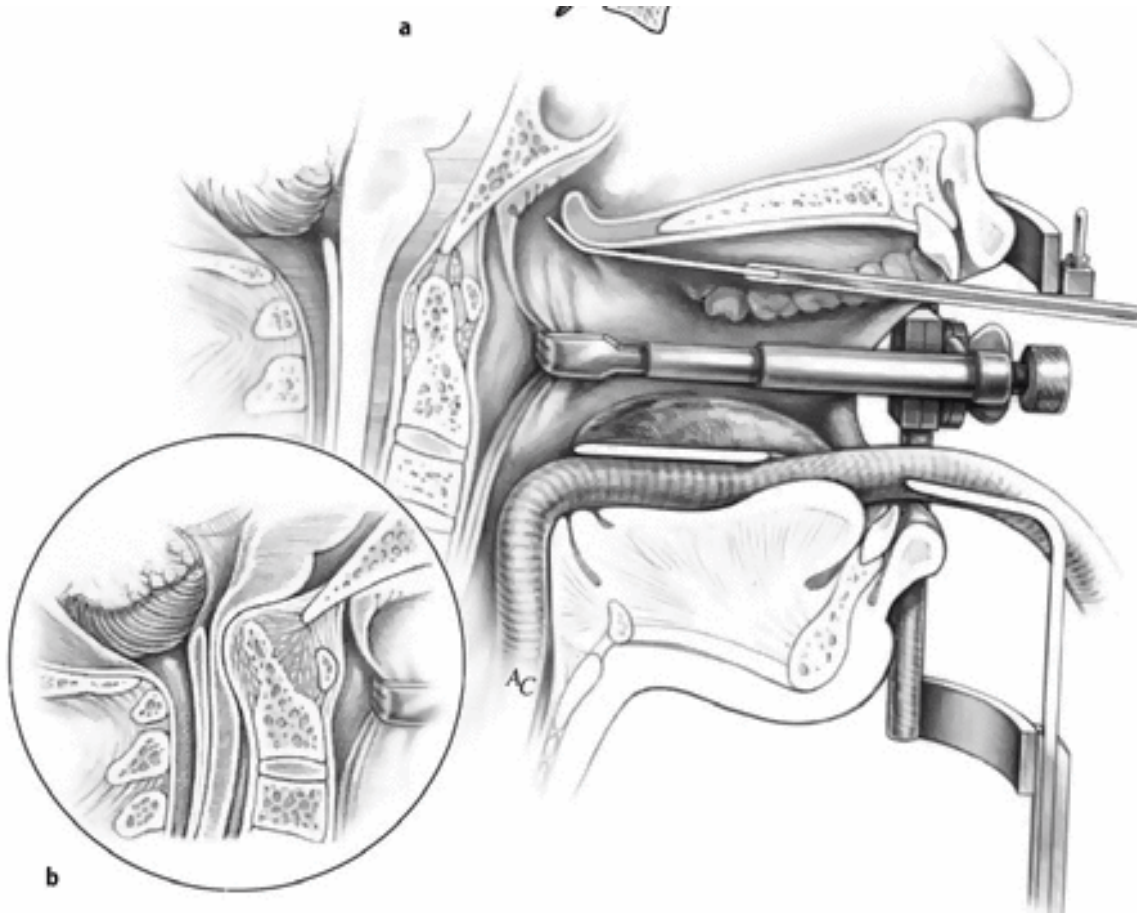




Dried fishes



Design of Loading Setup for Craniovertebral Junction



Model of Spine mounted on a manipulator

Design Parameter are

M. platform dia.: 150

F . platform dia.: 60

Pitch (γ) $\pm 45^\circ$

Roll (β) $\pm 45^\circ$

Yaw (α) $\pm 45^\circ$

Moment about flexion and extension as 1.5 Nm

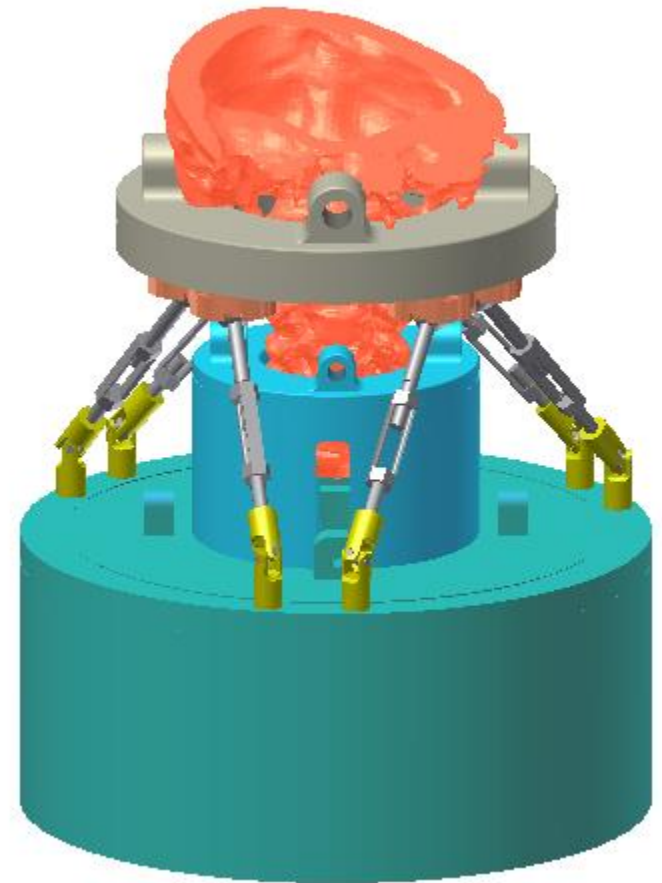
Moment about lateral bending as 1.5 Nm

Moment about axial rotation as 1.5 Nm

Force about X axis as 0 N, *measure only*

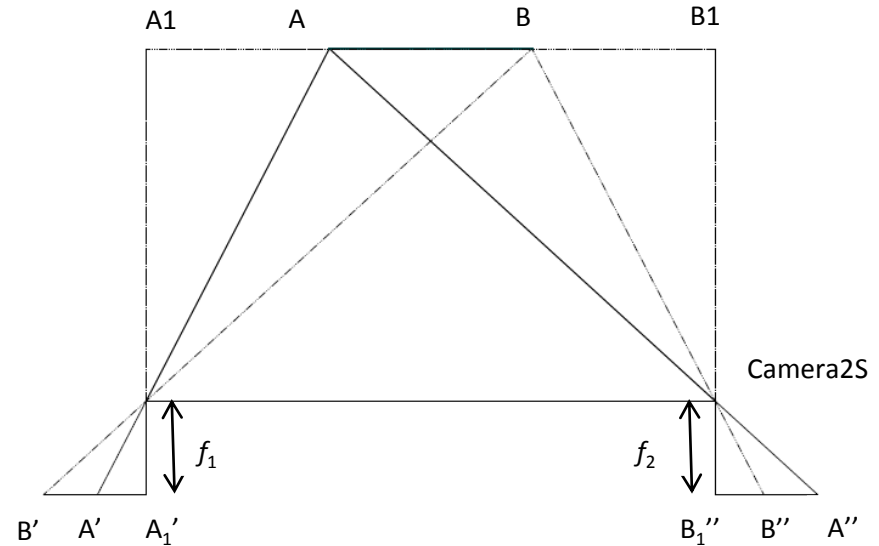
Force about Y axis as 0 N, *measure only*

Force about Z axis as 50N



Camera calibration

- Intrinsic parameter
 - Focal length
 - Principal point
 - Distortion parameter
 - Orientation
- Extrinsic parameter
 - Rotation vector
 - Translation vector



Camera calibration Tool Box

Parameter	Left camera	Right camera	Parameter	Values
Focal Length (pixels)	(2288.41578, 2292.13577) ± (77.50818, 76.53511)	(2270.20756, 2255.80570) ± (74.84753, 73.81352)		
Principal point	(1065.30039, 1008.88555) ± (23.89893, 13.4876511)	(1253.55980, 1134.51477) ± (13.77217, 20.40984)	Rotation vector (degree)	(0.04954, -0.07069, -1.65196) ± (0.00835, 0.00743, 0.0069)
Skew (degree)	90	90	Translation vector (mm)	(2.40981, 92.13408, -18.17528) ± (0.15127, 0.32725, 1.37766)
Distortion	(-0.022863, 0.16734, -0.00212, 0.00122, 0.00000) ± (0.01244, 0.02776, 0.00237, 0.00000)	(-0.022863, 0.16734, - 0.00212, 0.00122, 0.00000) ±(0.01244, 0.02776, 0.00237, 0.00000)		

Participated countries

Countries	Papers	Registered Participants
Algeria	2	1
Austria	3	3
Belgium	14	16
Brazil	2	1
Canada	5	5
China	27	36
Czech Republic	3	3
Denmark	2	2
Finland	3	4
France	1	1
Germany	21	25
Greece	2	2
Hungary	2	1
India	9	9
Italy	6	7
Japan	21	34
Korea	88	120
Mexico	1	1
Netherlands	1	2
Poland	5	5
Portugal	3	3
Russian Federation	4	5
Saudi Arabia	1	1
Spain	7	8
Sweden	2	1
United States	16	1

02.07.2014 23:01

Thank You

