



4.

14ton
(reuse)

60%
가

30
ISUI HOUSE

SEK-

가
가
가
60

2003.4
()
ekhwang@kict.re.kr





(Actuator)

가 가 .

(Microsystem)
(Micromachine)
MEMS

BiAST(Biaxial Strain
Transducer) Sensor
BiAST Iowa
MEMS

2

가 (Micro-machin-

ing) . (, Iowa

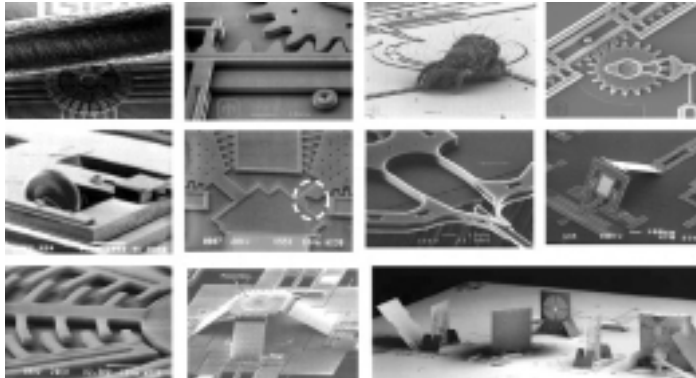
1)

MEMS

. Emitter Beam, CMOS
IC Chip, Connector, Sealed
Biaxial Mechanical Flexure,
Sensor Base Assembly

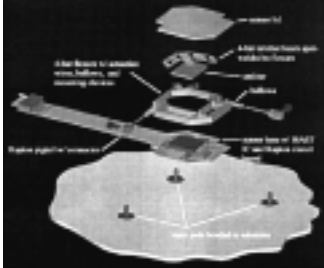
MEMS(Micro-
ElectroMechanical System)

가

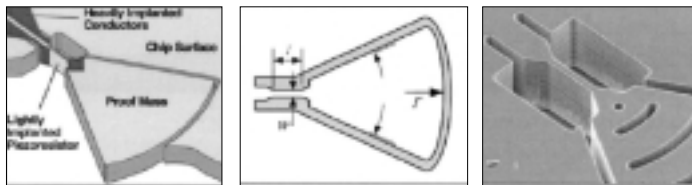


1. MEMS (가 ,)

Strain History Data



2. BiAST Sensor



3. MEMS Based Accelerometer

MEMS-Based Accelerometers & Wireless Structural Monitoring System

Stanford Univ.

MEMS

가

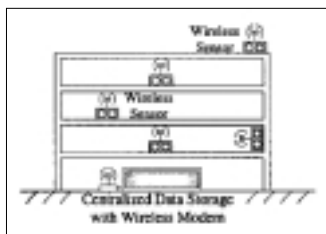
. MEMS

가

Proof Mass

Piezoresistor

가



4. Wireless Structural Monitoring System

MEMS
가 .
(Smart Dust)

2

10

Business2.0

6가

(Six Tech-

nologies that will change the world) ' . UC

(silicon mote)

Smart Dust Mote

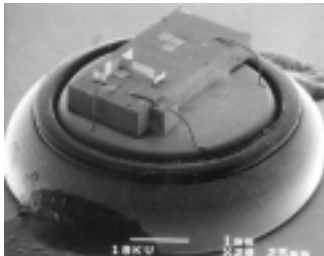
(Smart Dust)

Dust Networks

CTO(Chief Technology Officer)

Kris Pister가

UC



5. Smart Dust Mote

Crossbow

Mote

, MEMS



6. Crossbow Civil & Structural Solution

MEMS

2. Kristofer Pister, Preliminary Smart Dust Mote, Berkeley Sensor & Actuator Center, 2000, 9

3. , , , 2004. 4. 7 : () jrkim@kict.re.kr

Warm Mix Asphalt Technologies and Research

Warm Mix Asphalt(WMA) . WMA

가 가 (HMA : Hot Mix Asphalt) 300 가

가 가 HMA 가 가 가 가 가

1. Two Demonstrations of MEMS in Civil Engineering, Journal of Aerospace Engineering, Vol.16, No.3, July 1, 2003. ASCE

가 가 .