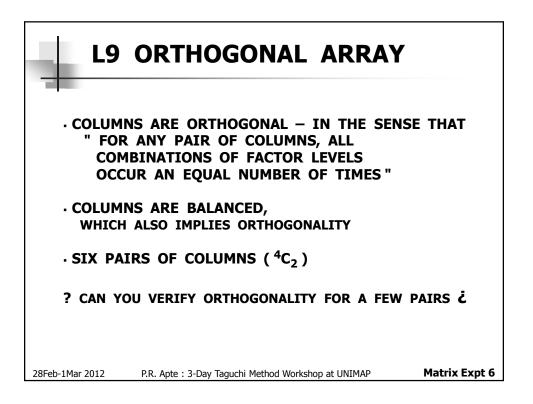
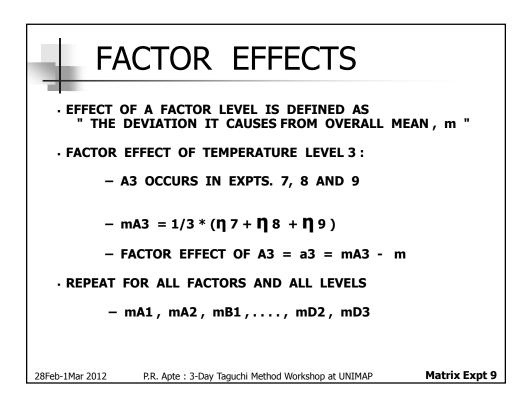


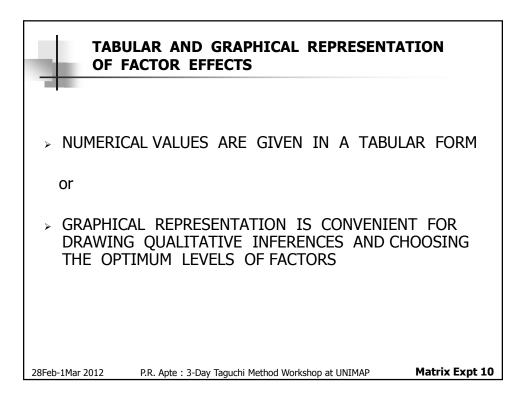
EXPT. NO.	. A .	2 . B .	. ³ .	4 . D .
1	A1	B1	C1	D1
2	A 1	B2	C2	D2
3	A 1	B3	C3	D3
4	A2	B1	C2	D3
5	A2	B2	C3	D1
6	A2	B3	C1	D2
7	A3	B1	C3	D2
8	A3	B2	C1	D3
9	A3	B3	C2	D1



EACH COMBINATION APPEARS only ONCE										
EXPT. NO.	1 . A .	2 . B .	3 . C .	4 . D						
1		B1	C1							
2		B2	C2							
3		B3	C3							
4		B1	C2							
5		B2	C3							
6		B3	C1							
7		B1	C3							
8		B2	C1							
9		B3	C2							

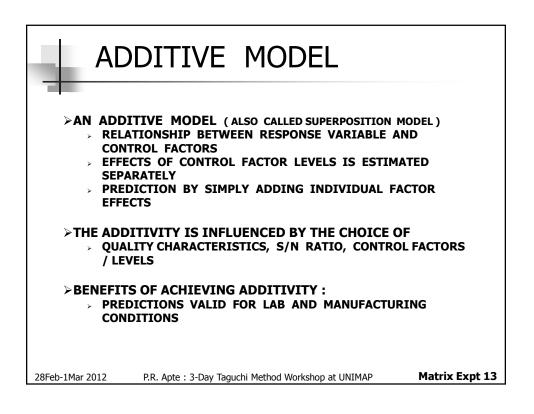
L9 ORTHOGONAL ARRAY											
with MEASURED SN-RATIO											
EXPT. NO.	1 . A .	2 . B .	3 . C .	4 . D .	SN-RATIO η (in dB)						
1	A1	B1	C1	D1	η1						
2	A1	B2	C2	D2	η2						
3	A1	B3	C3	D3	η3						
4	A2	B1	C2	D3	η4						
5	A2	B2	C3	D1	η5						
6	A2	B3	C1	D2	η6						
7	A3	B1	C3	D2	η7						
8	A3	B2	C1	D3	η8						
9	A3	B3	C2	D1	η9						

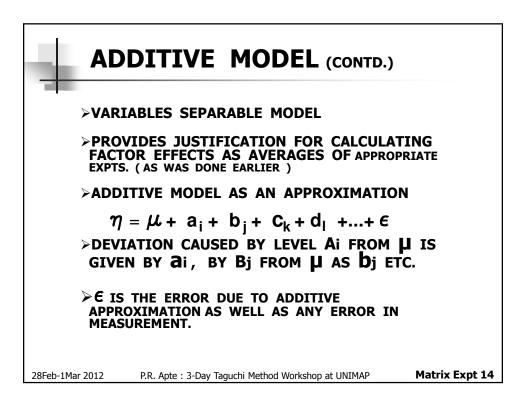


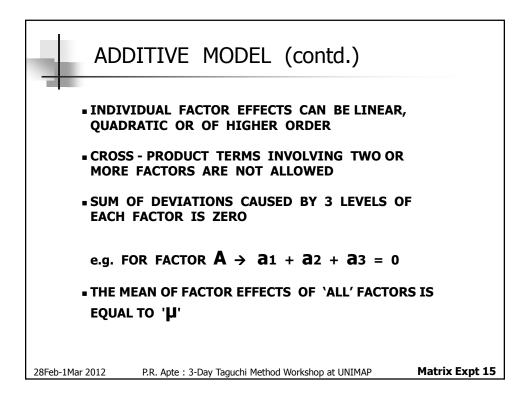


EXPT. NO.	TEMPERATURE A	PRESSURE B	SILANE C	CLEANING METHOD D
1	T0-25> 1	1	1	1
2	T0-25> 1	2	2	2
3	T0-25> 1	3	3	3
4	T0> 2	1	2	3
5	T0> 2	2	3	1
6	T0> 2	3	1	2
7	T0+25> 3	P0-200> 1	S0> 3	CM2> 2
8	T0+25> 3	P0> 2	S0-100> 1	CM3> 2
9	T0+25> 3	3	2	1

SELECTING OPTIMUM FACTOR LEVE	ËLS
• PRIMARY GOAL – TO MINIMISE DEFECTS – TO FIND OPTIMUM LEVELS	
- BEST LEVELS FOR TEMPERATURE → A1 → TO - 25 FOR PRESSURE → B1 → PO - 200 FOR SETTLING TIME → C2 → to + 8 FOR CLEANING METHOD → D2 → CM2 or → D3 → CM3	
• OPTIMUM SETTINGS → MINIMUM DEFECTS	
. A1 B1 C2 D2 or A1 B1 C2 D3 \rightarrow how few ?	
28Feb-1Mar 2012 P.R. Apte : 3-Day Taguchi Method Workshop at UNIMAP	Matrix Expt 12



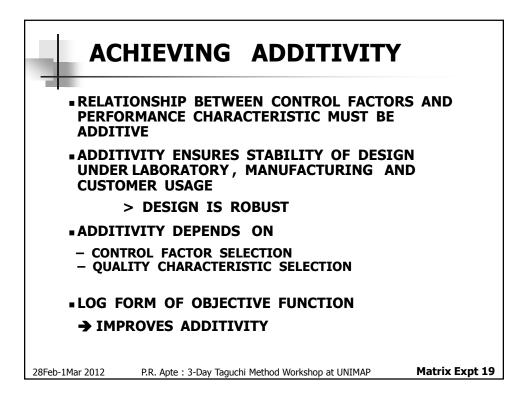


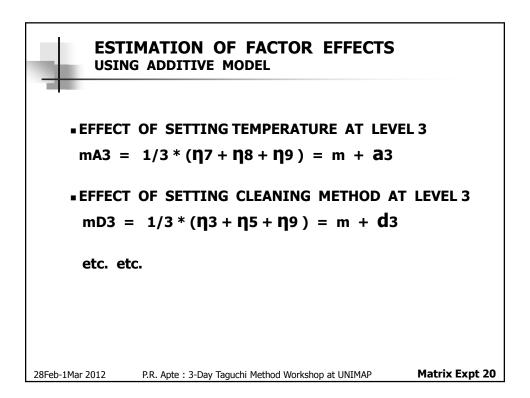


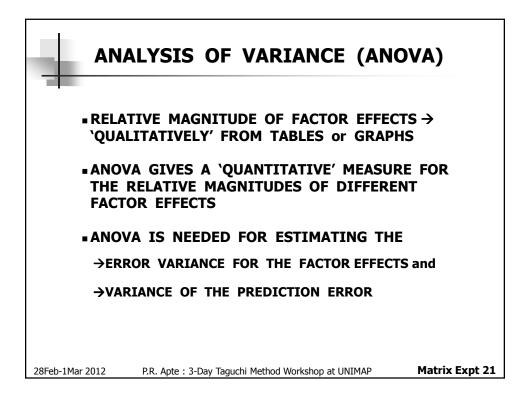
L8	ORTH	DG	ON	IAL	. A	RF	XA Y	Y	
	EXPT. NO.	1 A	2 B	3 C	4 D	5 E	6 F	7 G	
	1	1	1	1	1	1	1	1	
	2	1	1	1	2	2	2	2	
	3	1	2	2	1	1	2	2	
	4	1	2	2	2	2	1	1	
	5	2	1	2	1	2	1	2	
	6	2	1	2	2	1	2	1	
	7	2	2	1	1	2	2	1	
	8	2	2	1	2	1	1	2	
28Feb-1Mar 2012	P.R. Apte : 3-D	ay Tagi	uchi Me	thod W	orkshop	o at UN	IMAP		Matrix Expt 16

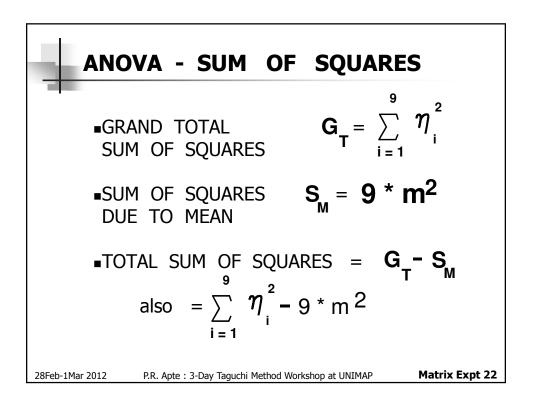
EXPT. NO.	. <mark>1</mark> . A .	2 . B .	. ³ .	. 4 . D
1	A1	B1	C1	D1
2	A1	B2	C2	D2
3	A 1	B3	C3	D3
4	A2	B1	C2	D3
5	A2	B2	C3	D1
6	A2	B3	C1	D2
7	A3	B1	C3	D2
8	A3	B2	C1	D3
9	A3	B3	C2	D1

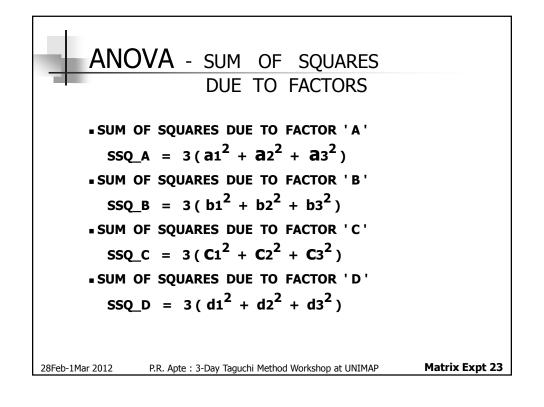
4	L18	OR	THO	DGO	NAL	AR	RA	1		
	EXPT. NO.	1 . A	2 B	3 . C	4 D	5 . E	6 F	7 G	8 H	
	1 2 3	1	1	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
	4 5 6	1 1 1	2 2 2	1 2 3	1 2 3	2 3 1	2 3 1	3 1 2	3 1 2	
	7 8 9	1 1 1	3 3 3	1 2 3	2 3 1	1 2 3	3 1 2	2 3 1	3 1 2	
	10 11 12	2 2 2	1 1 1	1 2 3	3 1 2	3 1 2	2 3 1	2 3 1	1 2 3	
	13 14 15	2 2 2	2 2 2	1 2 3	2 3 1	2 3 1	1 2 3	3 1 2	2 3 1	
	16 17 18	2 2 2	3 3 3	1 2 3	3 1 2	3 1 2	3 1 2	1 2 3	2 3 1	
28Feb-1Mar	2012	P.R. Apt	e:3-Day ⁻	Taguchi Me	thod Works	shop at UN	IIMAP	Mat	trix Expt 1	18

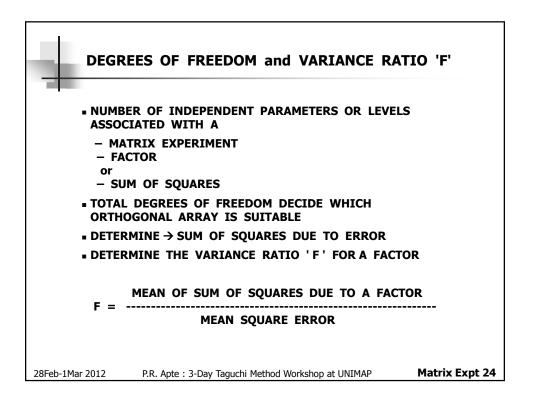


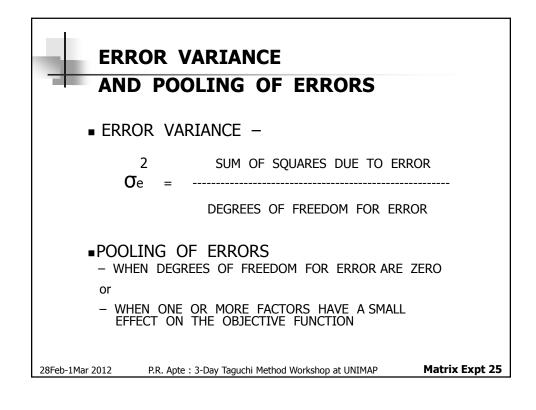


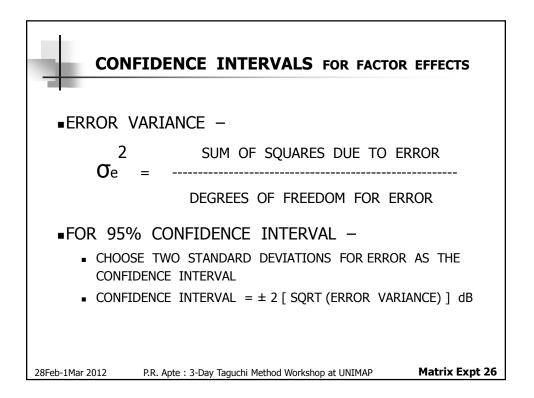


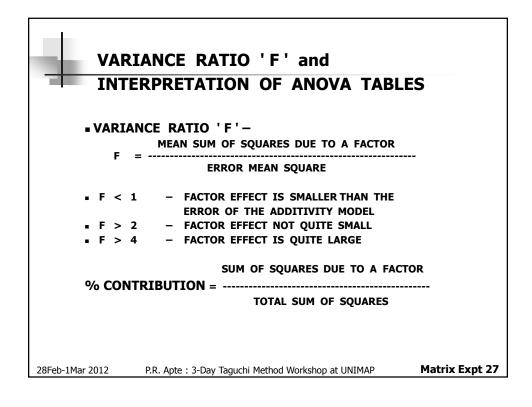


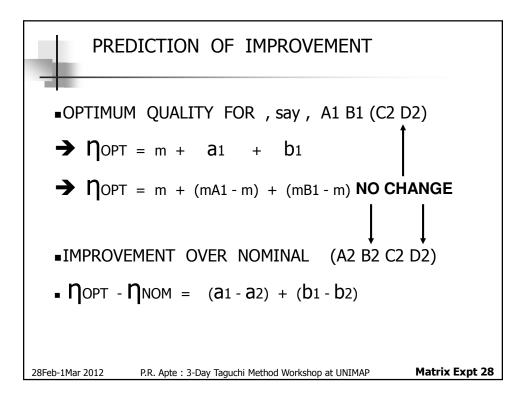


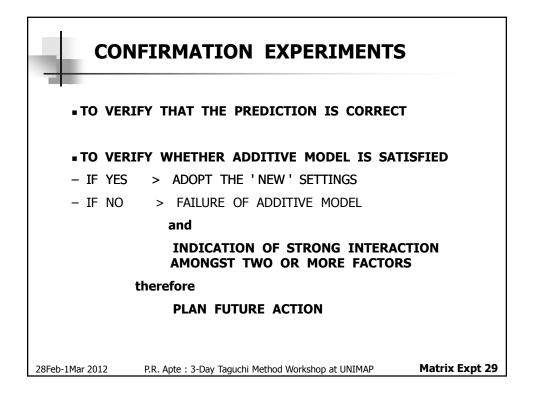


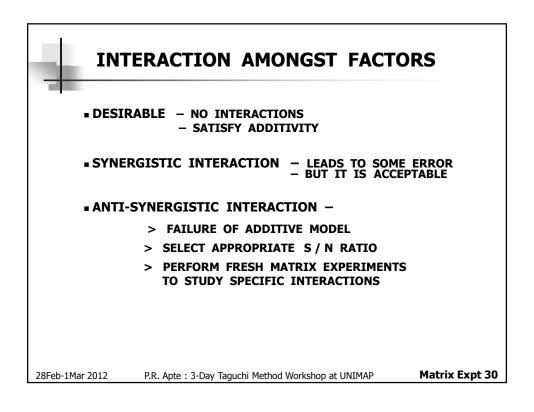


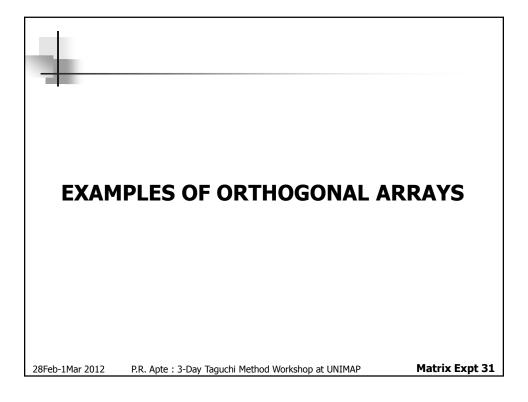












L8	ORTH	DG	ON	AL	. A	RF	RA	1	
	EXPT. NO.	1 A	2 B	3 C	4 D	5 E	6 F	7 G	
	1	1	1	1	1	1	1	1	
	2	1	1	1	2	2	2	2	
	3	1	2	2	1	1	2	2	
	4	1	2	2	2	2	1	1	
	5	2	1	2	1	2	1	2	
	6	2	1	2	2	1	2	1	
	7	2	2	1	1	2	2	1	
	8	2	2	1	2	1	1	2	
28Feb-1Mar 2012	P.R. Apte : 3-D	ay Tagi	uchi Me	thod W	orkshop	o at UN	IMAP		Matrix Expt 32

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EXPT. NO.	1 . A .	. ² . B .	. ³ .	4 . D .
#1	1	1	1	1
#2	1	2	2	2
#3	1	3	3	3
#4	2	1	2	3
#5	2	2	3	1
#6	2	3	1	2
#7	3	1	3	2
#8	3	2	1	3
#9	3	3	2	1

4	L18	OR	THO	DGO	NAL	AR	RA	1		
	EXPT. NO.	1 . A .	2 B	3 . C	4 D	5 E	6 F	7 G	8 . H	
	1 2 3	1 1 1	1	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
	4 5 6	1 1 1	2 2 2	1 2 3	1 2 3	2 3 1	2 3 1	3 1 2	3 1 2	
	7 8 9	1 1 1	3 3 3	1 2 3	2 3 1	1 2 3	3 1 2	2 3 1	3 1 2	
	10 11 12	2 2 2	1 1 1	1 2 3	3 1 2	3 1 2	2 3 1	2 3 1	1 2 3	
	13 14 15	2 2 2	2 2 2	1 2 3	2 3 1	2 3 1	1 2 3	3 1 2	2 3 1	
	16 17 18	2 2 2	333	1 2 3	3 1 2	3 1 2	3 1 2	1 2 3	2 3 1	
28Feb-1Mar	2012	P.R. Apt	e:3-Day	Taguchi Me	thod Works	shop at UN	IIMAP	Mat	rix Expt	34

	-		ARRAY AN LE IN A CAS			
				ALLOI	WIILLE	
EXPT. NO	SPEED A	FEED RATE B	DRILL LENGTH C	COOLANT D	FIXTURE E	RESPONSE S / N
1	1500	15	4	BLUE	OLD	42.18
2	1500	15	7	WHITE	NEW	53.96
3	1500	18	4	WHITE	NEW	48.48
4	1500	18	7	BLUE	OLD	48.98
5	2000	15	4	BLUE	NEW	44.20
6	2000	15	7	WHITE	OLD	42.19
7	2000	18	4	WHITE	OLD	41.58
8	2000	18	7	BLUE	NEW	56.40
eb-1Mar 2012	-	R. Apte : 3-Day			·	Matrix Expt 3

L18 ORTHOGONAL ARRAY AND EXPERIMENTER'S LOG								
COMPUTER TUNING for HIGH PERFORMANCE								
EXPT. NO.	1 F	2 B	3 C	4 D	5 E	6 A	7 G	8 H
1	2	а	4	1/5	0	4 & 1	400	a
2	2	а	3	1/4	3	4 & 2	500	b
3	2	а	3.5	1/3	8	4 & 2	600	с
16	0	с	4	1/3	3	4 & 2	400	b
17	0	с	3	1/5	8	4 & 2	500	с
18	0	с	3.5	1/4	0	4 & 1	600	а
10	1 -			1	1			-
28Feb-1Mar 2012 P.R. Apte : 3-Day Taguchi Method Workshop at UNIMAP Matrix Expt								

