



Kongu Engineering College, Perundurai- 638 060
Department of Food Technology



Two Credit Course on
"Non -Destructive Quality Evaluation"
25.08.21 to 01.10.21 (Timings : 5.30 pm – 6.30 pm)

Course Details

Duration	: 30 Hours
Resource Persons	: Ms. C.S.Maurikaa, Assistant Professor, Food Technology Ms. R.Meenakumari, Assistant Professor, Food Technology

Evaluation Procedure

Maximum Marks	: 100 (Internal Assessment Only)
No. of Assessments	: 2 (Assessment Test – 100 marks)
Passing Requirements	: Minimum 50 marks
Eligibility	: III rd and IV th B.Tech Food Technology

Course Outcomes

After completing the course the student will be able to:

- recall colour measurement modelling computer vision systems
- apply electronic nose and tongue for quality evaluation
- infer from NIR and MRI techniques
- interpret ultrasonic applications in food quality evaluation

Google meet link

Registered students can join through the below link

<https://meet.google.com/psq-igjc-kzw>

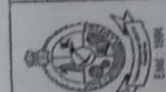
C.S. Maurikaa

KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE - 638 060

(AUTONOMOUS)

BOARD OF FOOD TECHNOLOGY

Approval for Value Added Course (Two Credits) - (Consolidated)



Date: 13.08.2021

List of Value Added Course (One / Two credit) in the academic Year 2021-22 Odd Semester

Sl. No	Regulations	Course Name	Course code (for Repeated Course) / New Course	Name of the Coordinators (Max:2)	Experts details from Industry (if any)	Whether Expert(s) is/are Alumnae (yes/no)	Lecture Hours	Practical Hours	Total Hours	Specify Fee/Batch or Fee/Per Student	Course Duration		Offered to (Year/Sem/ Branch of the student)
											From	To	
1	2018	Sensory Evaluation in Food Product Development	18VACS7	Ms. K. Manonmani Ms. N. Diviya Bharathi			30				23.08.2021	23.09.2021	III Yr / V Sem / FT
	2020		New Course										
2	2020	Industrial Prospective and Innovation in Soybeans Processing	New Course	Dr. V. Sudhakar Mr. V. Arun Joshy			30				20.09.2021	29.10.2021	III Yr / III Sem / FT III Yr / V Sem / FT
	2018		New Course										
3	2018	Non-Destructive Quality Evaluation	New Course	Ms. Meenakumari R Ms. Maurikaa C S			30				16.08.2021	16.09.2021	III Yr / V Sem / FT IV Yr / VII Sem / FT
	2020		New Course										

These courses shall be approved/ratified in the BOS meeting.

[Signature]
Faculty in-charge

[Signature]
HOD

[Signature]
15/08/2021
CCO/Academic

Principal

End:

1. Minutes of Internal BOS for approval of the above courses
2. Details of each course mentioned above as per the given format
3. Copy of the Syllabus of the courses

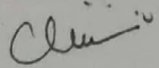
 KONGU ENGINEERING COLLEGE (Autonomous) PERUNDURAI - 638060 INTERNAL QUALITY ASSURANCE CELL Estd : 1984	Approval for Value Added Course (One / Two Credits)		 CERT No.: 99-100-20788 ISO 9001 : 2015

Academic Year: 2021-22 ODD Semester
DEPARTMENT OF FOOD TECHNOLOGY

Date: 13.08.2021

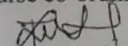
1.	Academic Year	:	2021-22				Semester : ODD	
2.	Course Title	:	Non -Destructive Quality Evaluation				Credit(s): Two	
3.	Type of Course	:	New Course					
	• If "Already offered course",	:	Course Code:		Version:			
4.	Course Coordinator(s)	:	1. Meenakumari R 2. Maurikaa C S					
5.	Course offered by	:	Internal faculty					
6.	Name and designation of external resource persons	:	NA					
7.	Details about external organization	:	NA					
8.	Course fee for external experts	:	Max. number of students/Batch		Course fee / student			
	-	:	50		-			
9.	No. of days	:	Period		No. of hours		Venue/ Meet ID	
		:	From	To	Lecture	Practical	Total	https://meet.google.com/lookup/dleygx346e
	30	:	16.08.2021	16.09.2021	30	-	30	
10.	Pre-requisites for offering the course	:	Food Chemistry and Food Microbiology					
11.	Course offered to	:	Programme		Branch		Year/Semester	
		:	B.Tech		Food Technology		III Year/V Sem IV year/VII Sem	
12.	Course Main Contents	:	Day 1	Overview of food safety and quality				
		:	Day 2	Quality Factors for Fresh Fruits and Vegetables				
		:	Day 3	Quality Orientation & Implications of Quality Orientation				
		:	Day 4	Management of Food Quality and Safety				

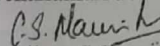
		Day 5	Colour Measurements and Modeling				
		Day 6	Light and Colour – an overview				
		Day 7	Colour Scales – CIE system				
		Day 8	Munsell System and Atlas				
		Day 9	Colour Measurement - Standards & instrumental methods				
		Day 10	Colour Difference modelling				
		Day 11	Computer Vision Systems – Introduction				
		Day 12	Image Acquisition & Image Processing				
		Day 13	Non-visible Computer Imaging introduction & basics				
		Day 14	Hyperspectral Imaging techniques and applications				
		Day 15	Electronic Nose and Electronic Tongue				
		Day 16	Odour Receptor and Odorant Relationship				
		Day 17	Concept of E-Nose				
		Day 18	Advanced Signal Processing				
		Day 19	Food Process Monitoring and Freshness Evaluation applications				
		Day 20	Concept of Electronic Tongue (E-Tongue) and applications				
		Day 21	Radiography, CT and MRI – overview				
		Day 22	Applications in Non-destructive Quality Evaluation				
		Day 23	Comparison of Techniques for quality evaluation				
		Day 24	Introduction to Near Infrared Spectroscopy				
		Day 25	Practical Application of NIRS				
		Day 26	Introduction to Ultrasonic Technology				
		Day 27	Application of Ultrasonic to Food Quality Measurement				
		Day 28	Introduction to Miscellaneous Techniques				
		Day 29	Modeling of Quality Attributes				
		Day 30	Thermal Imaging applications				
		Assignment / Project / Case Study/Others: None					
		13.	Course Outcomes	:	After completing the course the student will be able to: - recall colour measurement modelling computer vision systems - apply electronic nose and tongue for quality evaluation - infer from NIR and MRI techniques - interpret ultrasonic applications in food quality evaluation		
		14.	Course Assessment (Min. 2)	:	S. No.	Type	Max. Marks
					1	Objective	50
					2	Objective	50
Total					100 Marks		

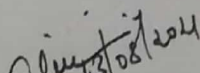
	Verified that the content of this course is not offered to students partially/fully in regular curriculum of respective programme of the student. Certify that the course content, credits and grade are approved in the BOS meeting or approved by internal BOS members and will be ratified in the next BOS meeting	 (Signature of the HoD after verification)
16.	Any other details	: None

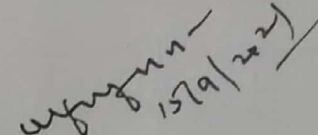
The above proposal may kindly be approved.

Course co-ordinator(s)


Meenakumari R


Maurikaa C S


HOD


Chief Coordinator/Academic

Encl:

1. Copy of the syllabus of the course
2. Financial proposal from the external organization (if any)

 Estd : 1984	KONGU ENGINEERING COLLEGE (Autonomous) PERUNDURAI - 638060 INTERNAL QUALITY ASSURANCE CELL	 CERT. No. 88-1021-20786 ISO 9001:2015
	Department of Food Technology Attendance Sheet	

Title of the Course: Non-Destructive Quality Evaluation

Date: From 25.08.2021 to 01.10.2021

SL.No.	Name of the participants	Date / Sign																				
1	KAVIN KUMAR G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	20.09.2021
2.	ANGELIN CHRISTINA E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	17.09.2021
3.	SABITHA V	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	16.09.2021
4.	JISHANTHIKAPRIYA S	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	15.09.2021
5.	M ADITYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	14.09.2021
6.	BRINDHA E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	13.09.2021
7	ANJALI KUSHWAHA S	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	10.09.2021
8	RAGUL S	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	09.09.2021

 KONGU ENGINEERING COLLEGE (Autonomous) PERUNDURAI – 638060 INTERNAL QUALITY ASSURANCE CELL		
	Department of Food Technology Attendance Sheet	

Title of the Course: Non-Destructive Quality Evaluation

Date: From 25.08.2021 to 01.10.2021

Sl.No.	Name of the participants	Date / Sign									
		21.09.2021	22.09.2021	23.09.2021	24.09.2021	25.09.2021	27.09.2021	28.09.2021	29.09.2021	30.09.2021	01.10.2021
1	KAVIN KUMAR G	P	P	P	P	P	P	P	P	P	P
2.	ANGELIN CHRISTINA E	P	P	P	A	P	P	P	A	P	P
3.	SABITHA V	P	P	P	P	P	P	P	P	P	P
4.	JISHANTHIKAPRIYA.S	P	P	A	P	P	P	P	P	A	P
5.	M ADITYA	P	P	P	P	A	P	P	P	P	P
6.	BRINDHA E	P	P	P	P	P	P	P	P	P	P
7	ANJALI KUSHWAHA S	P	P	P	A	P	P	P	A	P	P
8	RAGUL S	P	P	P	P	P	P	P	A	P	P

KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE-638 060
(Autonomous)

VALUE ADDED COURSE / TWO CREDIT COURSE 2020-2021

S.NO	ROLL NUM	NAME	Attendance %
1.	18FTR022	KAVIN KUMAR G	93.33
2.	18FTR004	ANGELIN CHRISTINA E	93.33
3.	18FTR042	SABITHA V	90
4.	18FTR019	JISHANTHIKAPRIYA.S	90
5.	18FTR002	M ADITYA	86.67
6.	18FTR011	BRINDHA E	93.33
7.	18FTR005	ANJALI KUSHWAHA S	93.33
8.	18FTR037	RAGUL S	83.33
9.	18FTR043	SANA FATHIMA C N	93.33
10.	18FTR048	SHOBANA.S	83.33
11.	18FTR031	NEHAA.B	90
12.	18FTR021	KANAGA VARSHINI P B	86.67
13.	19FTR014	P.GOVARTHANI	83.33
14.	19FTR033	NIVEDITA. P. V	90
15.	19FTR007	ARAVIND R	100
16.	19FTR035	POOVIZHI N	86.67
17.	19FTR010	BALAKRISHNAN C	93.33
18.	19FTR019	HEMA S	86.67
19.	19FTR030	G.NANDIKA	83.33
20.	19FTR032	NIRMALEASWARIE.V	100
21.	19FTR020	C.JAGADEESH	90
22.	19FTR022	R.JHANANTH KUMAR	90
23.	19FTR029	MUKESH S	83.33

Course coordinators

Ms. R. Meenakumari

Ms. C.S. Maurikaa

KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE-638 060
(Autonomous)

VALUE ADDED COURSE / TWO CREDIT COURSE 2021-2022

S.NO	ROLL NUM	NAME	ASSESMENT - I MARKS OUT OF 50	TOTAL MARKS OUT OF 100	ASSESMENT - II MARKS OUT OF 50	TOTAL MARKS OUT OF 100
1.	18FTR022	KAVIN KUMAR G	30	60	38	76
2.	18FTR004	ANGELIN CHRISTINA E	30	60	31	62
3.	18FTR042	SABITHA V	33	66	31	62
4.	18FTR019	JISHANTHIKAPRIYA.S	28	56	32	64
5.	18FTR002	M ADITYA	39	78	34	68
6.	18FTR011	BRINDHA E	25	44	29	58
7.	18FTR005	ANJALI KUSHWAHA S	34	68	38	76
8.	18FTR037	RAGUL S	29	58	34	68
9.	18FTR043	SANA FATHIMA C N	31	62	33	66
10.	18FTR048	SHOBANA.S	31	62	34	68
11.	18FTR031	NEHAA.B	29	58	36	72
12.	18FTR021	KANAGA VARSHINI P B	27	54	37	74
13.	19FTR014	P.GOVARTHANI	37	74	36	72
14.	19FTR033	NIVEDITA. P. V	35	70	32	64
15.	19FTR007	ARAVIND R	39	78	39	78
16.	19FTR035	POOVIZHI N	34	68	25	50
17.	19FTR010	BALAKRISHNAN C	38	76	30	60
18.	19FTR019	HEMA S	35	70	29	58
19.	19FTR030	G.NANDIKA	31	62	28	56
20.	19FTR032	NIRMALEASWARI.E.V	32	64	32	64
21.	19FTR020	C.JAGADEESH	35	70	37	74
22.	19FTR022	R.JHANANTH KUMAR	37	74	30	60
23.	19FTR029	MUKESH S	39	78	34	68

Course coordinators

Ms. R. Meenakumari

Ms. C.S. Maurikaa