



**SCHOOL OF
ENGINEERING**

PHYSICS FACULTY RESEARCH SPOTLIGHT IN THE NEWS MEDIA



HEALTH AT RISK IN COMMUNITY KITCHENS!



Dr. Sudeep Kumara K, Assistant Professor in the Department of Physics, Dayananda Sagar University, authored a vital study on air pollution in community kitchens of Dakshina Kannada. The findings reveal hazardous PM levels affecting kitchen workers' health. The study was featured in The Hindu & Times of India on 19th June 2025. It emphasizes the need for urgent action on ventilation and clean fuel use. Published in Environmental Monitoring and Assessment (Feb 2025), the work underscores Dr. Sudeep's commitment to impactful, community-relevant research.

AIR POLLUTION LEVELS

PM_{2.5}: Up to
418 µg/m³
(Safe: ≤25
µg/m³ - WHO)
PM₁₀: Up to
434 µg/m³
PM₁: Up to 286
µg/m³

! HEALTH RISK INDICATORS

Hazard Quotient
(HQ):
PM_{2.5}: Up to 13.7
(Safe < 1)
Excess Lifetime
Cancer Risk (ELCR):
(10× above safe
limit!)

Community kitchen chefs in DK exposed to high levels of particulate matter: Study

A collaborative study on air pollution in 15 such kitchens in the district was done by Mangalore University, IIT Bombay and University of Miami

The Hindu Butera
MAY 1987

A collaborative study on air pollution levels in 26 community kitchens in Dhaka city, Bangladesh, showed that large-scale cooking is done regardless that chefs are exposed to high levels of particulate matter (PM₁₀). The study titled "Assessment of health risks due to the inhalation of respiratory particulate matter generated in the community kitchen" was carried out by Mangalore University in collaboration with IIT-Bombay and University of Illinois, U.S.

The study was the first of its kind to meticulously investigate the exposure of workers in Indian community kitchens to various size fractions of particulate matter, say the researchers.

Health risks found in community kitchens: Study

TIMES NEWS NETWORK

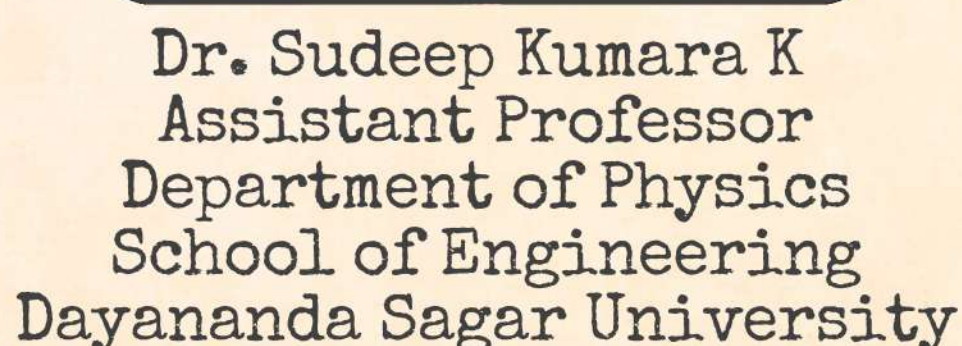
Mangaluru: The collaborative research study on community kitchens in India revealed that professionals such as cooks, serving staff, cleaners, and supporting staff are exposed to higher concentrations of particulate matter (PM).

The findings are published in the study titled 'Assessment of health risks due to the inhalation of respiratory particulate matter generated in the community kitchens' by Dr K Sudeep Kumar.



A community kitchen

The continuous monitoring allowed researchers to establish the essential database on air pollution levels, for which previous studies



✓ CALL TO ACTION

📖 Ventilation Upgrades (Chimneys, fans)

Cleaner Fuel Transitions

🧑🏻‍⚕️ Occupational Health Monitoring

Protective Gear for Chefs

KEY MESSAGE

All kitchens
exceeded safe
limits—
regardless of
fuel type!
Workers are
breathing
dangerous air
daily.

